From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: don merz <71333.144@CompuServe.COM>
Subject: -W, -WA, etc.
Message-ID: <961203180948_71333.144_DHB22-4@CompuServe.COM>

On the -W and -WA tube suffixes, Sudwell Sibley describes these as
-W = Ruggedized
-A, -B, -C = Improved, backward-compatible versions
so I had been interpreting -WA as Ruggedized, Improved Version.
I think that is right but it's not clear.

73, Don

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: BEN NOCK <106312.1035@compuserve.com>
Subject: 28-44 Command set
Message-ID: <199612031342_MC1-CA0-75A3@compuserve.com>

With regard to the recent messageS about the rare
vhf ? command set, that only one was known of,
then my message that I had one.....

I'm sorry to say (not really :-) but I have two now.
I bought a box of command bits, three rx's and some
dyno's. When I got them home and looked more closely,
one was a 28-44 MHz version.

The coil pack is stamped with 6-9.1 and an ink
stamp has over printed it with 28-44. The dial is
marked 28-44 and an extra aerial plug, the British PYE
type fitted to the side of the set. There is printing
on the side where the id plate went which states
R1598.

This one is in alum case, my other one being black
painted. So, I will see if I can get it to make a noise,
in fact I have not yet tried the other one even.

If anyone has a circuit of what the modded set should
look like, though I guess its only front end mods, I
would still like to see a copy.

regards all. Ben G4BXD
MILITARY WIRELESS IN THE MIDLANDS

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Dave Hockaday <wb4iuy@ipass.net>
Subject: 4PR1000
Message-ID: <199612031245.HAA10211@passport.ipass.net>

Does anyone have any experience with a 4-PR1000 tube in continuous duty amplifier sevice? If so, please email me direct at wb4iuy@ipass.net.

This tube was designed to do 25KW in pulse service at 4% duty cycle. I want to build an amateur amplifier with it, and wonder how it would operate at say 1KW continuous duty.

Thanks,
wb4iuy@ipass.net

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Steve Ellington <n4lq@iglou.com>
Subject: 51S1 SOLD.
Message-ID: <m0vV6CP-000cVCC@relay.iglou.com>

51S1 has been sold. 73

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: "Richard A. George" <wa6jox@rain.org>
Subject: ac capacitor rating
Message-ID: <Pine.SUN.3.95.961203165346.25374B-100000@coyote.rain.org>

I picked up a couple of 54 mfd oil filled caps rated at 660 vac. What kind of working voltage should these be good for on dc?. Thanks for all and any advise.

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: dfrancis@access.usa.net (Dexter Francis)
Subject: Re: Anchors 'a weigh (dive, dive, dive...)
Message-ID: <v01520d01aeca4bb58146@[207.0.57.74]>

Over the TurkeyDay weekend I happened to rent "Down Periscope" and noted that there was at least one BA on the shelf in the radio room of the "diesel pig boat" used in the movie. I'm embarrassed to say that I didn't re-wind the tape and try to figure out what it was, or even if it belonged

on a sub.
However it is a legitimate BA sighting, and should be readily available in your local video shop.
The movie wasn't as bad as I expected, BTW, and although fluffy got a few good laughs out of the wife and kids.

Ping 'em hard once and stand by to fire!

-df

* CWest Tube Sales *
"Have Tubes, Will Haggle"
P.O. Box 22443 SLC, UT 84122
(801) 363-TUBE voice/fax
e-mail: tubes@usa.net

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: pmills@A.crl.com (Phil Mills)
Subject: As The Meatball Turns -- more ??
Message-ID: <199612032324.AA06539@A.crl.com>

The KWS-1 with the mysterious PA problem has sockets for the 4X250's that have built-in screen bypass caps....according to the manual, these are 3700 pf. Questions....has anyone ever heard of these things failing? Keeping in mind that the cathode is grounded through about 4 different pins, the grid is fed through the center pin/keyway, and the sockets are wired in parallel....if a cap has failed, would anything be gained by adding a 1000 pf from the screen pin to ground? Would any harm be done by adding a 1000 pf from the screen pin to ground if the 3700 pf built-in was okay? I'm open to any and all suggestions and wild guesses on this thing. To recap what I've done to date with no improvement:

replace PA tubes with NOS ones

replace plate parasitic chokes (47 Ohm 2 watt resistors with 3 turns # 18 around them)

replace plate RF choke since old one was blown...newly wound one resonates at 25.5 mc.

thanks & 73,
Phil
.

Phil Mills, AB5TH   *****   *****
pmills@a.crl.com
281-992-5762 days
Friendswood, TX   (south of Houston)

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: mknudsen@lucent.com
Subject: Re: B&W IST-1K transmitter
Message-ID: <9612031801.AA00343@bock.ih.lucent.com>

I love it! That ad is pure camp!
Vietnam Vets can now get jobs as tail gunners on Brinks SX-88 trucks
or sentries at the COllins Museum....

I didn't notice any bodyguards around Chuck Dachis at the Elgin ARCI Radiofest -- maybe they're really good that way....

BTW if I make private phone calls or email to someone to buy their precious radio, and I get robbed right before/after stopping by to pick it up, I wonder just who tipped off the thieves....maybe he'll sell the same set again next month. 73, mike k aa9rg

---

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: "Benjamin D. Hall" <BDHall@ghgcorp.com>
Subject: ba aromas!
Message-ID: <32A473F0.2104@ghgcorp.com>

TPHAAK@ccmail.monsanto.com wrote:

> Speaking of smells, what others out there have their own signatures??

Personally, I love the smell of my R-390A. It smells like old WW2 battleships when I turn on the rack fans and get the air in there circulating... And the smell of the roasting dust on the tubes my SX-24 used to smell really good, too...

73,
Ben
--
Benjamin D. Hall, Houston Texas - Junque collector extraordinaire.
E-mail: BDHall@GHGCorp.com -or- Benjamin.D.Hall1@JSC.NASA.GOV

```
From boatanchors@theporch.com  Tue Dec  3 19:53:31 1996
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Re: ba aromas!
Message-ID: <199612032207.RAA01323@atl.org>
```

|
| >   Speaking of smells, what others out there have their own signatures??
|

Philco S-38 most certainly lived in a chicken coup.
I like it because my very first radio (I was 5 at the time)
was another Philco console and it came
from my grandfathers chicken coup.

SX110 used to belong to a cigar smoker.
Reminds me of Henry Simpson. Old RR telegraph
operator who helped me along with early novice
surplus stuff. I remember Henry walking around the
Atlanta Hamfest, chomping on a cigar with his
remaining stubs of brown tooth, carrying a
tupperware container half full of draft beer in his free
hand (other hand was balancing him against his cane).
One of the YLs flirtatiously inquired as to what
was in the container. Old Henrys reply, "SPECIMEN"!

R390 smells like gun oil (hey, it made those gears feel good).
Was cleaning the S&W 44 'Clint Eastwood Magnum Radio Defender'
and my eyes fell upon the 390. Well, you know how easy it is to
get carried away. First you're oiling the guns, then
the door hinges, and before you know it nothing in the house squeaks.

S40B smells like roast duck and pork combo.
May have spent time in a Chinese restaurant kitchen.

Not to get too far off BAs. How does the comet pro compare
performance wise with it's contemporaries. I'm looking at
swapping some stuff for a late model (xtal and AGC)
version. How difficult is it to find the band coils?
Will it serve me well for AWA test RX?

I'm still sorting through my archived mail and have a mechanical
digital voltmeter and a frequency standard here that need shipping.

-bob

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: bsheck@NIMUE.HOOD.EDU (Bob Sheck)
Subject: Re: ba aromas!
Message-ID: <01ICKZKRX94I0033G1@NIMUE.HOOD.EDU>

>BDHall@ghgcorp.com & TPHAAK@ccmail.monsanto.com wrote about smells- I love the way it all smells- particularly the oiled TTY tape and the inside of MOD28 gear. I was singularly blessed with spending over 20 years inside Navy Commcenters where I could get both smells mixed together. Tobacco smoke too has to go into the mix for authenticity, because 90% of us smoked like fiends back then.

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Tom Norris <badger@telalink.net>
Subject: BA Smells
Message-ID: <3.0.1.32.19961203190910.0069a10c@telalink.net>

At 10:38 AM 12/3/96 -0600, Tim WA0TSY wrote:

[stuff about CV-89's and 57's and his new 28ASR....]

Ahhh, the clank and the smell of warm TTY oil, not much like it, really......

>
>   Speaking of smells, what others out there have their own signatures??

Why, the smell of the MFP varnish on a warm tube rig, of course! Almost as good as a warm oily teletype, or the slight ozone smell of a Model 14TD reading away....

****
 Tom Norris KA4RKT
 badger@telalink.net   Nashville, Tennessee, USA

  Eagles may soar, free and proud, but weasels
       never get sucked into jet engines.

****

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: w2ec@VNET.IBM.COM
Subject: Collins S-Line crystals
Message-ID: <199612030315.VAA07266@uro.theporch.com>

Thanks for the many pointers, have my crystals on order.

73, Ray W2EC

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: "Barry L. Ornitz" <u856010@eastman.com>
Subject: Could it be???
Message-ID: <Pine.ULT.3.91.961203164417.15520A-100000@dua150.kpt.emn.com>

After digging up a vibrator replacement article for Sandy Blaize from the October 1960 issue of Popular Electronics, I decided to scan through the rest of the magazine and reminisce with the ads by Hammarlund, Hallicrafters, Texas Crystals, TAB, Western Radio, Joe Palmer's Surplus (BC-610 tuning units, $3.45; 6V6GTY, a dozen for $6.95), etc. While this magazine predated my ham radio hobby by four years, I always remembered reading "Across the Ham Bands" by Herb Brier, W9EGQ. So I decided to read it again. Located after the crystal diode noise generator construction specs was the "News and Views" portion of the column. And this _name_ popped out... Could it be? Is this the same person we all know?

> Ray Mote, Jr., 1110 E. Caeser, Kingsville, Texas, who expects to get his Novice license soon, says you can tune in sideband signals on the Knight-Kit "Ocean Hopper" and similar regenerative receivers by advancing the regeneration control to beyond the oscillation point - the same setting used for code reception - and very carefully tuning in the signal. At one critical setting, the received voice will quit sounding like "Donald Duck" and become perfectly readable.

So Ray, if this was really you in the earlier days, I hope you continue to have as much fun today as you did then!   :-)

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: "Morton L. Denison" <mdenison@postoffice.ptd.net>
Subject: Re: CV SSB converter for sale
Message-ID: <32A39DDF.4241@postoffice.ptd.net>

Saw a posting about a CV SSB converter for sale a day or two ago. Could the person contact John Bowers (bowers@tyrell.net). He may be interested.

Thanks in advance

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: k7yha@juno.com (Richard H. Arland)
Subject: Re: CV-89
Message-ID: <19961203.220504.4415.3.k7yha@juno.com>

On Tue, 3 Dec 1996 10:38:31 -0600 (CST) TPHAAK@ccmail.monsanto.com writes:

> Gang,
>
> I recently picked up a pair of CV-57 tty converters and a CV-89 converter.

Here's a true CV-89 story. While stationed in the Lajes Field, the Azores in the early 70s, I had a guy working for me on shift at the Tech Control Facility that used to be a Ditty-Bop/Radio Intercept OP at Ramey AFB in PR. He had crosstrained into our career field and was really good with a R-390 and CV-89.

On a bet, one day, he put a Fox Test ("The quick brown fox.....") into chnl 1 of our FGC-29 (16 chnl mux) going to Andrews AFB, via our HF shot. Then he dialed up our Andrews HF transmit frequency with the R-390. He then proceeded to tune in the fox test by singling out chnl 1 on the 16 chnl tone pack and fed it into the CV-89. From there he fed the output of the '89 into a KSR-28 TTY machine and printed out our "Foxer" in Tech Control.....not bad for 1950s technology.

I think you'll have fun with your CV-89.

73 rich K7SZ

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: "Morton L. Denison" <mdenison@postoffice.ptd.net>
Subject: Dana 8010B Freq Counter Manual
Message-ID: <32A4127F.3404@postoffice.ptd.net>

Does anyone have an operations manual or copy I could get for the above quasi-boatanchor (the display is tubes anyway).

Thanks,

Mort Denison

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: "Lon W. Cottingham" <k5jv@swweb.net>
Subject: Dial overlays for R-388 51J series
Message-ID: <199612030323.VAA07512@uro.theporch.com>

I need to replace several 51J, R-388 dial overlays. I believe that Dale Gagnon, KW1I supplied these about two years back. I can not find his E-mail addess. Can anyone help?

73 de Lon W. Cottingham, K5JV
1110 Golden Bear Ln.
Kingwood, TX 77339
713-358-4207   713-358-4234 FAX

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Richard Hager <rhager@millcomm.com>
Subject: Distributed Amplifiers, Book
Message-ID: <32A3F154.7BE2@millcomm.com>

Hello fellow filamentarians...

During the thread on distributed amps a few weeks ago, I mentioned a book but didn't have the specific info. Here it is:

Fundamentals of Distributed Amplification
by Thomas T.Y. Wong
325pp, 1993, hardcover

publ by: Artech House, Inc.
617-769-9750,   fax=617-762-9230

I've seen their catalog and there were a bunch of great looking books in it. Unfortunately, most of them ran a hundred bucks or more, and this dist amp book is probably no exception.

I heard about this book in a review published in the July 1994 Microwaves and RF magazine, and tore out the page for future ref. I just found it amidst the clutter while cleaning the desk (finally).

>From the review, it sounds like an excellent book. One that would

contain all the information needed for an experienced tech to design and build their own dist amp. I'm pretty sure I'm going to spring for the C-note one of these days...

Hope this is of help to those who like to play seriously....

(to me, it's like the sampling scope obsession. I don't really -need- it for anything, but I sure love playing around with it and learning about it!)

Richard
--

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ http://www.gdic.com/ahha email: ahha@gdic.com -

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: mack@mails.imed.com
Subject: Drill Bits
Message-ID: <9611038496.AA849636065@mails.imed.com>

There was a thread here a while back on what drill bits are best for chassis work, etc. It reminded me that my grandfather's brother (great uncle?) once showed me how to re-grind mangled drill bits. He was a machinist by trade.

This would seem to me a useful skill since some restoration jobs call for sacrificing the tip of a drill bit. Things like drilling out rivets seem to be especially hard on drill bits.

As I recall there are different tips for different jobs as well. Said another way: all drill bits are not created equal.

Are there any machinists here? Is this something that we can be walked through? Or do I need to find a machinist to "elmer" me through this?

Ray Mack
WD5IFS
mack@mails.imed.com
Friendswood (Houston), TX

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: KA9EGW@aol.com
Subject: Re: Drill Bits
Message-ID: <961203134117_872579243@emout17.mail.aol.com>

DON'T use regular jobber drills for sheet metal; use sheet metal drills. That seems to be the #1 BA drilling problem is regular jobber drills screwing themselves into the workpiece as the lip breaks through the back.

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: bill@skeeter.frco.com (William Hawkins)
Subject: Re: Drill Bits
Message-ID: <9612032011.AA09881@skeeter.frco.com>

Well, the original question was about sharpening, and i haven't seen a reply yet. As a mechanical engineer (but not a practising one - my field is process control), I can say a few things about that.

If you have a grinding wheel, and you can dress it flat (take out any grooves in the face of the wheel), there's a jig that will hold a drill bit at the proper angle as you rotate it against the face of the wheel. Think I've seen them in better hardware stores. Personally, I break bits before I have to sharpen them.

People who drill holes for profit go to great lengths to get the proper bit material, point angle, lubricant, feed rate, and speed for the material being drilled. If you have a hand drill, don't drill so fast or push so hard that the bit overheats. Use oil when you drill steel (it's quieter as well as faster). Back up the piece being drilled with some scrap wood to prevent punching through the work. Use scrap on both sides if the metal is thin. Take the burr off the hole with an oversize bit or a countersink.

Somebody with more experience could tell us how to look at the drill chips and tell what's wrong with the way the drill is being used.

Regards,
Bill Hawkins

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: mknudsen@lucent.com
Subject: Re: Drill Bits
Message-ID: <9612032043.AA00458@bock.ih.lucent.com>

Good advice.

Also, when drilling hard plastics like plexiglass, lucite, etc.,
a long time ago I learned the hard and easy ways that a nice new
sharp standard drill bit is NOT the right tool.
The "easy" part was when our union senior machinist explained that you need
a "negative rake" drill bit whose angle of attack is backed off enuf
so it doesn't bite deep, snag, and shatter these brittle plastics.

I asked him "you mean, use an old, worn bit?" Nope, grind one
special with the negative rake. Yeah, right, if you work
in a nice big machine shop. I'd go with a worn-out bit, except you run
the risk of overheating and burning thru the hole instead of drilling it
(sometimes not a bad idea where neatness doesn't count).

Anyone got the real lowdown on drilling plexiglass and lucite?
(no doubt these are trademarks of some Delaware coproration).
73, mike k aa9rg

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: Re: Drill Bits
Message-ID: <19961203224546.AAB24593@LOCALNAME>

At 06:48 PM 12/3/96 +0000, you wrote:
>DON'T use regular jobber drills for sheet metal; use sheet metal drills.
> That seems to be the #1 BA drilling problem is regular jobber drills
>screwing themselves into the workpiece as the lip breaks through the back.
>
Best investment I made years ago, was two "Roper-Whitney" hand punches.
One is the "#5 Jr.", the other is the "XX". The smaller one will punch
holes from 1/16 to
9/32" and the larger will do holes from about 1/8" to 1/2". They are shear type
punches that use dies for each size desired. *NOTHING* matches them for
doing sheet metal! The only 'drawback' is you can't punch holes any more
than 2" away from an edge with the small tool and 4" away with the big tool.
Also you can't punch holes in a pre-folded and welded chassis base. For
panels and making things like
"blade" switch levers, links for terminal strips etc. from flat stock, it's
a dynamite tool!
If you do your own chassis' from sheet aluminium, steel or clad PC board
material,
they work excellently.

73
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001

ebjr@worldnet.att.net

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: Re: Drill Bits
Message-ID: <19961203224546.AAC24593@LOCALNAME>

At 08:19 PM 12/3/96 +0000, you wrote:

>Well, the original question was about sharpening, and i haven't seen a
>reply yet. As a mechanical engineer (but not a practising one - my field
>is process control), I can say a few things about that.
>
>Somebody with more experience could tell us how to look at the drill chips
>and tell what's wrong with the way the drill is being used.
>
>Regards,
>Bill Hawkins
>

Anyone interested can consult a copy of "Machinery's Handbook" any edition
(old or new) for recommendations on drill bit rake angles.

The way the 'chips' form depends on many things: rake angle,
material being drilled, speed of feed etc. Most "stock" drills are ground
for steel. Aluminium, brass, bronze, plastics require different point
angles and rates of feed for best results.
Depends on alloys too. I've seen aluminium that turned like a dream in a lathe, and
other varieties of aluminium that didn't machine well at all, were gummy and 'sticky'!
Some varieties of 'cold rolled' steel work well, others are miserable to
work with and get a decent finish on. Metals have a "grain" (not unlike
wood) depending on how they were processed (rolled, forged, cast etc.) and
cut different in different directions.
Guess that's why most good machinists served an 'apprenticeship' to learn all this,
"hands on". The stuff the books can warn you about, but techniques you
learn only by working with the materials or under the eye of a master machinist!
73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001
ebjr@worldnet.att.net

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Richard Hager <rhager@millcomm.com>
Subject: Drilling... the art and science thereof...
Message-ID: <32A4C2C9.1B15@millcomm.com>

mack@mails.imed.com wrote:
>
> There was a thread here a while back on what drill bits are best for
> chassis work, etc.
> Are there any machinists here? Is this something that we can be walked
> through? Or do I need to find a machinist to "elmer" me through this?--

I guess I'm the 'resident machinist', so I'll give it a shot. I see that there's already several responses saying 'well, no machinist has answered yet so...' Hey, it's only been 18 hrs since I checked the list! Whew! You guys are quick!

Note: Some vendors will be listed at the end.

OK, first and foremost....get good bits to begin with!!! I can't emphasize this enough. NEVER skimp on tools and tooling. It just ain't worth it. Are you going to do BA work for a while? Then spring for $100 and get a first-class drill index (metal holder with 113 cobalt HSS bits). You'll get all the fractionals, plus all the number series and letter series bits.

That'll give you all the exact right sizes for doing tapped holes also, and it's important to have the right size if you're going to tap a hole. A few thousandths too big and your threads are junk. A few mils too small and you'll break off a tap in a second...semi-permanently embedded in your precious BA....

-Good- tooling is made from High Speed Steel (HSS), and the best grades of HSS include several percent Cobalt, thus 'Cobalt HSS'.

Various surface coatings are also available. Titanium Nitride (TiN) is a popular coating, and for good reason. It adds an extremely hard, and also lubricitive, surface to the bit. This lengthens bit life and reduces sticking and galling in gummy alloys like wrought aluminum for example.

Watch out for junk bits that look nice cause they have a TiN coating (gold colored). They're still junk bits!

Second, only use sharp bits. I stick the dull ones in a drawer and use them for 'locating' pins, or any project where I need a piece of precision ground stock of that diameter. I do -not- sharpen 50-cent bits.

The drill sharpening fixtures you get at a hardware store are junk. They are so sloppy and so non-rigid that you'll just ruin the bit. Good drill sharpening fixtures run several hundred dollars. A key to proper cutting is -balance- in the tool. If one side is ground just a thousandth of an inch different than the other side, you'll get unequal chip-loads on each flute, the drill will try to suck into the work, cut out of round, and generally make a mess of your BA.

By the way, this is another difference between good tooling and junk tooling. Some of the cheap bits are so bad right from the factory that you can easily see the imbalance with the naked eye.

Also, the vast majority of home shop pedestal grinders do not have the right wheels for this work, nor do they have good enough bearings to cut smoothly in this kind of work.

New bits are -cheap-. A typical cobalt HSS #29 (for 6-32 screw) bit is only 60 cents or so, for a brand-new top-notch bit. Why screw around?

Use 'screw machine' bits wherever possible. They are shorter than regular 'jobber' length bits, thus they're much more rigid and cut better holes. The drill index you'll buy will almost certainly be jobber length, and that's fine 'cause you'll have the longer length when you need it.

But then I get 10-paks of stub-drills (screw-machine length) for both clearance and tap hole sizes of commonly drilled holes, and I use them all the time. This saves the long bit for when I really need it, and need it in good condition!

One of the responses mentioned negative rake angles. While it is true that there is an optimum geometry for each different material, it is not neccesary to buy those tools for cutting plastics. The vast majority of plastics can be machined just fine with normal metal-cutting tooling. The most critical factor in successful machining of any material is to have a -rigid- machine and fixturing, and a sharp cutting tool.

Another respondent mentioned the Roper-Whitney hand punches. God I love those little suckers! I have three of 'em, each loaded with a commonly used size. I ALWAYS use them instead of drilling if it's possible. They only have a couple inches throat depth, and 3/8" or so of thickness clearance, so you can't use them for every job. But where you can, they're the absolute best solution.

PS: They -will- shatter cheap grades of lucite/plexiglass/acrylic. PPS: Lexan is NOT acrylic. It looks the same, nice and clear, and is used for similar applications, but it's tough as hell (and costs 3 times what acrylic costs). Lexan is polycarbonate and is what they make bulletproof 'glass' and safety glass lenses from. That's tough! And it's easily punched. Note that it is still a plastic though, and scratches easily.

The punches come with a set of 8 fractional size punch/dies, up to 1/4". You can punch up to 3/16" or so in an 1/8" aluminum rack panel. Pretty good for a hand tool! As I recall, the 'kit' is about $75. I bought 10 of them at $48 or something. We used to sell them. You can get any size you want made for you at about $15/set (set of punch and die). You will need to do this if you want to make tap-size holes, as all the common tap sizes need 'number size' drills, not fractionals.

Another respondent mentioned using light pressure, to avoid overheating the tool. Actually, you can get in trouble that way. Most jobs are best accomplished with a solid, but steady, feed pressure. You do NOT want the tool simply rubbing the surface. In fact, some materials, like stainless, work-harden almost instantly. I had one production job, where if the operator paused while cranking the mill table, then started again, the bit would snap right off.

For critical jobs, a drill press with a leadscrew downfeed is far superior to the typical 'spider handle'. The 'mill/drills' you see for a grand or so are an excellent value for general shop use. They're junk compared to a Bridgeport mill, but vastly superior to the usual drill-press.

You know, I'm -sure I had a plastics catalog around here that had machining hints for all kinds of different polymers, but for the life of me I can't find it now. But all the producers publish application notes and other lit to guide you. Call and ask for it. Here are some sources that I've found helpful...call and get their useful and interesting catalogs.

MSC (tooling) 800-645-7270 Every drill bit known to man (plus some known only to alien bankers from new york city....)

Roper-Whitney 815-962-3011 punches, shears, etc..

Seelye Plastics 612-881-2658 (distributor)

Commercial Plastics 718-849-8100 (corp hdqtrs, branches all over US)

McMaster-Carr, no number handy, but in Chicago I think. Incredible breadth of stock in tools, materials, fasteners, etc.. Tough to get a catalog, but worth asking for.

Note: All major producers like Dupont etc. have web sites where you can request that data sheets and machining hints be mailed to you.

Some further notes:

1) All common -wrought- aluminum alloys are pretty gummy. The extrusion

alloys, 6053 etc, are horrible. The 'aircraft' alloys like 2024 and 7075 (copper based) are much better, but they're double the per-pound cost, and are subject to stress corrosion and cracking. 6061-T6 is your best all around choice. 5052-H32 is a good sheet metal choice.

2) -Cast- aluminum actually machines pretty nicely, like brass.

3) Cold Rolled Steel machines fine. If you're having trouble, you probably have hot-rolled steel, or possibly a high-carbon CRS. Even the higher carbon alloys (1045 vs 1018 mild) machine fine if you have good tooling and a rigid machine.

4) Stainless is a very 'tough' material, however it also cuts fine if using proper feedrates, spindle speeds, etc.

5) Speaking of which, there is a proper speed and feed for every combination of tool and material. As another respondent suggested, get a copy of Machinery's Handbook. About $50 from any tool distributor like MSC, Travers, etc.. An excellent, excellent reference work that you will use for 20 years. PS: The 'proper' spindle speed for drilling an 1/8" hole in aluminum is somwhere around 10-15,000 rpm!! The vast majority of drill presses are limited to 2,500 rpm or so. Thus, you need to reduce the 'feed' rate so that the chip-loading stays the same.

6) Chip-loading is an important concept. It is the size of the bite that each cutting edge takes on each pass through the material (two cutting edges on a 2-flute drill). A particular tool likes a particular range of chip-load, typically half to one-and-a-half mils. There is also a preferred surface-speed of cutting edge in relation to workpiece. All recommended speeds and feeds are derived from these two parameters.

6) There are many styles of drill point and many 'angles' for those points. Machining is truly an art form as well as a science, and there's no way I can get into the details of drill points here. Suffice it to say that if you get a -good- quality drill index, those drills will work fine for 99% of what you need to do. Tool geometry -is- a fascinating subject, and I recommend you get a book on it if you plan to do a lot of metal work. Then you -can- select the best tooling from the MSC catalog.

7) PS: Drill bits are NOT precision cutting tools. They typically create a hole several thousandths larger than the bit size, and almost always a little out of round. If you need an accurate and round hole, you must use a 'reamer'. You drill about 5-10 mils undersize and finish with the reamer (typically a $3-8 tool, per size, in the range 0 - 3/8").

Whew!!! Wow, I didn't realize I had gone on so long! Please, if you have any interest in this stuff, archive this msg!! Don't make me to do it all again next month!!

Karl Motrecht wrote two wonderful books on machining. They cover drilling, milling, turning, shaping, grinding, etc.. From the basics up to fairly sophisticated operations, and they include some feed/speed info, but mostly on metallics. Published by Industrial Press (same as Machinery's Handbook) and about $50 for the set if I remember right.

Good luck, and have fun 'making chips'! Machining is a gas, and one of the best skills you can ever add to your 'toolbox' if you're into electronics construction and repair.

Richard

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ http://www.gdic.com/ahha email: ahha@gdic.com -

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: mknudsen@lucent.com
Subject: DX-100 in 'B' Cabinet?
Message-ID: <9612031952.AA00422@bock.ih.lucent.com>

OK you Heath heavy-iron experts, here's one:
Will a DX-100 fit in a DX-100B's cabinet OK?

Will an R390(A), which are known to fit well in DX100 cases?

The 100-B cab is a much "tighter" fit, being basically wrapped around the chassis and panel, whereas the original 100 has about an inch of breathing room all around.

The 100-B cabinet would make a smaller package, but my naked DX-100 is not a 'B'. I ahve a line on a 100-B cabinet and want to know if it will fit the -100 or at least the R390 sets.
Tnx es 73, mike k aa9rg

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Ronnie Hull <larebel@ms1.nwla.com>
Subject: DX100 Manual

Message-ID: <32A45509.1371@ms1.nwla.com>

Greeting fellow anchormen. I have become fortunate enough to get into a DX100 jright, so now I need a manual or copy thereof... anyone out there that can help me?

Thanks

Ronnie - W5SUM

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: mknudsen@lucent.com
Subject: Re: DX100 Manual
Message-ID: <9612031718.AA00287@bock.ih.lucent.com>

Funny you should mention it. Turns out I have only a 3-page ad blubrb and the raw schematic for my DX-100. So, if anyone is willing to zerox a manual, pse make 2 copies and let me know what you'd like for postage, etc.
Tnx, mike k aa9rg

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Morris Odell <morriso@vifp.monash.edu.au>
Subject: Electrolytic capacitors
Message-ID: <32A4B217.7DF9@vifp.monash.edu.au>

Gang, I am in need of some advice regarding voltage ratings and replacement elctrolytics. I need to replace a filter cap in a HP 606B (the B might well stand for "Boatanchor") signal generator. This is a Sprague 120/40 mfd dual unit rated at 475 volts. The 40 mfd side only sees the 300 volt regulated line and the 120 mfd side (which is the faulty one) sees the rectifier output. The voltage across the 120 mfd rises to 445 volts at switch-on and then falls to about 425 volts during operation. The regulator device is derived from sand (the innards, not the envelope) and is non original which implies that a full voltage rating on the 40 mfd would not be a bad idea.

I have a 100 mfd Japanese made cap rated at 450 volts which I have used to temporarily bridge the circuit for diagnostic purposes. My question is whether it's OK to use it so close to its voltage rating. I also have some dual 50+50 mfd caps rated at 350 volts. Four of these in series/parallel would give 100 mfd with plenty of voltage reserve but would take up a lot of room and would require some modification to the 606B.

So what do you think? (and does anyone know of a source for 475 volt 120mfd caps?)

73

Morris

```
----------------------------------------------------------------------
Morris Odell                 Victorian Institute of Forensic Medicine
Forensic Physician                  57-83 Kavanagh St, Southbank 3006
morriso@vifp.monash.edu.au                        Victoria, Australia

Web page: http://www.vifp.monash.edu.au/CFM/staff/mo.html
----------------------------------------------------------------------
```

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: Ken_Warren@beavton.k12.or.us (Ken Warren)
Subject: Fair Radio Catalogs
Message-ID: <2333453.ensmtp@beavton.k12.or.us>

Hi Gang, I am in need of original or readable copies of old Fair Radio catalogs or Berry Green Sheets or any other flyers listing military or commercial surplus. I will be glad to pay for copy and mail costs if you let me know what you have.
Please reply to KenwK7RPX@worldnet.att.net and not to the list. I will make copies and return originals if you do not have copy facilities at your location. Thanks.

Ken Warren K7RPX
Ken_Warren@beavton.k12.or.us
KenwK7RPX@worldnet.att.net

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Beaverton School District
Beaverton, OR

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: "Benjamin D. Hall" <BDHall@GHGCorp.com>
Subject: Fair Radio WWW Page
Message-ID: <32A3AAE5.208@GHGCorp.com>

Wow, what a fun webpage. It changes *every* day! Neat new stuff,
including all sorts of R-390A parts. Both

http://alpha.wcoil.com:80/~fairadio/

and

http://alpha.wcoil.com/~fairadio/index.html

work for me! Enjoy.

73,
Ben
--
```
---------------------------------------------------------------------
 From the computer of            | Collector of fine firebottle
 Benjamin D. Hall, Houston Texas | equipment, as well as other things
 BDHall@GHGCorp.com -or-         | involving Earth, Air, Water, and
 Benjamin.D.Hall1@JSC.NASA.gov   | Fire.
---------------------------------------------------------------------
 "When you clock the human race with the stopwatch of history, it's a
 new record every time." - From the soundtrack of The Fischer King.
```

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Steve Ellington <n4lq@iglou.com>
Subject: FS: 51S-1 price reduced
Message-ID: <m0vUmdS-000d26C@relay.iglou.com>

The Collins 51S-1 in excellent condition with no scratches has been reduced in price to only $875. Everything works on this one and I can find no defects in the paint. Audio quailty is excellent. filters include 800cps for cw, 2.1 for ssb and the I.F. for AM.

Steve
n4LQ@igLou.com

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Steve Ellington <n4lq@iglou.com>
Subject: FS: Collins R-388
Message-ID: <m0vV6Mf-000cKTC@relay.iglou.com>

R388/URR. Has covers, top and bottom and cabinet.

CONDITION:

Cabinet: very rusty and needs major repainting but not   dented.

Front panel: Thousands of paint chips but all lettering is present:
             Chrome handles on front etc.

Knobs: Most are original except for a couple of close clones.

Dial drum: extreemely yellow and dirty

Chassis: dirt

History: Stored in barn for 20 years. Replaced filter, cord, several silver micas, A few tubes, fixed pto component, minor alignment.

Working Condition: Everything works. AM sounds great. Cw is excellent if you ride the RF gain. Xtal filter is really sharp and responsive.

Price: $125 obo plus shipping from 40272. About 50 pounds

Steve N4LQ@iGLou.com

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: BEN NOCK <106312.1035@compuserve.com>
Subject: FS: Military bits keys/valves
Message-ID: <199612031342_MC1-CA0-75A5@compuserve.com>

For Sale: (prices in UK sterling)

Valve cases: CASES 4 VALVE No 3 ZA9817
(A) 1 OFF PERFECT 4 VALVES 45.00
(B) 2 OFF RUSTY BUT LETTERING
INTACT, 3 VALVES IN ea 25.00

KEYS: RAF WWII BATHTUB, USED IN LANCASTER
BOMBERS ETC WITH 1155/54
(C) 1 OFF 10/10 PERFECT 45.00
(D) 2 OFF 9/10 40.00

GERMAN WWII MG3 AMMO POUCH WITH 8 MAGS
SOME DATED 1938 ETC 50.00
(postage on this extra)

ALL INC POSTAGE UNLESS NOTED
OUTSIDE UK, BANK DRAFT OR UK NOTES NEEDED

Ben G4BXD

MILITARY WIRELESS IN THE MIDLANDS

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Chris Sieg <c_sieg@conknet.com>
Subject: FS:R390 Ant Connectors
Message-ID: <Chameleon.4.01.2.961203074324.c_sieg@PIEXX.conknet.com>

Hi R390 Fans,
  I recently came across a bag of new twin-ax connectors for the R390 series of receivers. If you would like some, price is $3.75 plus shipping.

Thanks,
-Chris

Name: Chris Sieg WA3LDI
E-mail: c_sieg@mail.conknet.com (Chris Sieg)
URL http://www.conknet.com/piexx
From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: Robert Fowle <hammarlund@jacksonmi.com>
Subject: had mail problem
Message-ID: <32A4A2FC.37A6@jacksonmi.com>

to those who may have emailed me and not got a response. i was informed
yesterday of an error that was bouncing my mail being sent to me.
if you emailed and got no reply, please resend..
thank you for the space..

--
**** Please, Visit my Web Page.....****
==]-[->
Robert Fowle   KC8DBC
1215 Winifred
Jackson, Mich. 49202-1946
Ph. 517-789-6721
E-mail: hammarlund@jacksonmi.com
Web Page: http://www.jacksonmi.com/hammarlund

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: rdkeys@csemail.cropsci.ncsu.edu
Subject: Re: Hammarlund RBG -- aka de ol' HQ-125R5
Message-ID: <9612031833.AA106341@csemail.cropsci.ncsu.edu>

> I'm having a hard time understanding how any sane person could say any
> Hammarlund is inferior to a RAL. I will include the wide range of the
> SP200 series, HQ120X, 129X or even an original SuperPro. As a real,
> opposed to wannabe, Navy ET in 1959-63 and a civilian tech after that,
> I had plenty of experience with the RAK-RAL series. Junk radios then and

> my impression has not changed. Maybe fine collector items but
> operational crap that look good in some movies.

I will have to differ with you on this one....

Well, I base my experiences on them with about 22 years operational experience in daily use in ham stations. I run a brace of them, a pair of RAK and a pair of RAL. On CW, the RAL is hard to beat. That is all I do, so I don't have any comments about it on AM or FSK, although it will work on AM, and I have done FSK with it, and it is as good on SSB as anything of its era (I used it with an early CE phasing exciter just after I got my general ticket --- for MARS SSB nets).

The Hammarlunds of the WWII and earlier era are generally good receivers, but they tend to be broad as a barn door, drifty unless you turn them on and leave them on permanently (usually done), and have lousy dial calibration except for point to point work, where you log your station on the logging scale. I have used most of the various Hammarlund models including the HQ-100, HQ-120, HQ-129, HQ-145, HQ-190, RBG, SP-200, SP-600, and BC-779. Over 25 years, I have about a year operational time on each of the early ones and about 10 years on the RBG, and just some play on the later exotic ones. I had the HQ-100 as an SWL receiver 30 years ago. I have not had the fortune to use an HQ-215, for reference.

In comparing the RAL with the Hammarlunds of its era, I would take the RAL ANYTIME, for CW, based upon my experiences with it. The main criticism I have with the RAL and its companion RAK are null dial calibration. You get a 0-1000 logging scale and that is that. But, once you use it for a while, and log a few band edges, it is not much of a problem. You develop a feel for its tuning.

The selectivity of the RAL is second to none, for receivers of its era (WWII and earlier). In its wide open mode, the selectivity is much less than 6khz, since it slices the sidebands off a commercial AM signal, to the extent that it will make it sound more like communications quality than audiophile quality. The Hammarlunds typically have around a 6-8khz bandwidth, wide open. If you put the RAL and a superhet, for example an R-388, on the same station (in the ham bands or the ship/shore bands), for example the BA/GB Net QRG of 3579.545khz, then W1AW is a problem on the R-388 without using the xtal filters, as are the traffic nets just below. The early Hammarlunds are about the same or a little worse compared to the R-388. The RAL will typically just barely hear W1AW, very slightly, and not even pick up the traffic nets. That is wide open. If the regeneration is set up tighter, then W1AW falls away. We have not even begun to dial in the passband audio or lowpass audio filters, on the RAL, yet. Add the lowpass filter, and everything higher than 1500hz is gone. Add the tuneable passband filter and you can tune any particular signal between 300 and 1500 hz, and cut off anything else.   The WWII era and earlier Hammarlunds don't allow the operator that much control. The xtal filters are pretty good, but are subject to ringing. They are useful if you use an old CW operators trick and ring the filter on the resonant frequency of your tin cans or speaker. Typically, the metal coned LS-144 speakers of the 50's and 60's work very well in this mode. Likewise do the large diaphramed Baldwin and Brandes style tin cans. Unfortunately, most of the WWII era Hammarlunds, and even later ones, until you get to the 160/180 series, tend to be very touchy in their tuning. Sneeze and you have lost your signal. The RAL has much finer tuning than that, albeit without calibration. The RAL is also built heavier than even the WWII superpro series, and holds the QRG much better than any of the early Hammarlund dials, under any conditions. Only when you get to the R-390 class of receiver is the RAL outclassed. I would rate the RAL even with the R-388, on everything except dial calibration. The R-390 is well ahead of the RAL, when pushing the limits.

The sensitivity of the RAL compares very favorably with anything of the WWII era, and that includes the Hammarlunds. In general, it hears anything that the R-388, R-390, or Kenwood TS-140S freq meter hears on HF. Only pushing the 15 meter band does it begin to fall off. But, that is not too shabby for 1936 technology. The Hammarlunds are notoriously unstable and somewhat unsensitive on the top band (16-30 mhz), also, even as late as the 140 series, so they all compare identically, there.

> (Trivia question: Name the movies that had RAK-RAL ,as props).

I have seen it in one or two, but don't remember which ones right off. It was in at least one of the sub movies, and used in a shore installation in one of the TV series, beside a TBK if my memory is not too foggy.

> My comments based upon real life, day to day shipboard use, (finally put
> into Emergency Radio) and then some critical military situations; not
> hobby use in 1996.

As an ET were you also the RM? I am a bit confused here. By the time you were in (1960), in military applications, the RAK/RAL had been mostly outclassed by the SRR's, R-390's, URC-32's, etc., and been relegated to the backwaters applications in secondary installations and leftover WWII boats. In mission-critical applications, it had been phased out with the incoming 1950's-1960's nuclear navy technologies. In CW applications, it was still being used, where CW was being used. Only a few diesel pig boats (old diesel subs) had them as late as the Cuban Missile Crisis. But, I have a neighbor a couple of blocks away, who is a caddilac CW chops, second to none, that used the RAK/RAL as late as 1963 out of the Florida sub base on the old Sea Cat. By then, they were beginning to put in URC-32's, if his memory is correct, and that would outclass the RAK/RAL also. His remembrances of the RAK/RAL indicated that it was still quite good at CW, even then, aboard ship (sub). It was harder to zero in on a particular QRG, but good at what it did --- CW.

> If you want to collect real Navy shipboard radios look at the
> RBA/RBB/RBC. Maybe not so romantic but pretty darn good. Many Navy
> Radiomen preffered them to the SRR series that became "upgrades". The SRR
> was also a reliability nightmare, at least in early years.

I have the RBC, and have used the RBB and RBC quite often. They are very good superhet receivers, and far outclass the Hammarlunds up to the 180 series. I would suggest that they outclass the superpro series up to, but not including the SP-600 series. Not bad for pre-WWII technology. They are better than the RAL in some ways and worse in others. Their main problem is that the tuning is way too fast, much faster than on the RAK/RAL. Sensitivity-wise they are about the same, on the lower HF bands and MF bands, but a little better on the top HF band (RBC). They have good filtering, but use the same audio style filtering that the RAK/RAL used, plus IF filtering based upon passband tuning. The RAL has tuneable passband filters, whereas the RBA/RBB/RBC do not. Note that the RAK/RAL and the RBA/RBB/RBC series receivers were designed by RCA (RAK/RAL in 1936, and RBA/RBB/RBC in 1938). As an aside, can you tell me what kind of receiver the RBA is?   It is not a regen. It is not a superhet. It could be classed as one form of TRF set, perhaps..... Hint at end of email.....

> 73........Carl   Ex- National Radio 1963-69   But prefer Hammarlund
> ...detest Hallicrafters, tolerate Collins....generally grumpy and
> probably too damn opinionated.

Nah, yer just an ol' Boatanchor Pfarte, like me!

I still consider the RAK/RAL design one of the finest CW receivers ever built, and the last of the long line of military and commercial regen receivers that started with the SE-143 in WWI. But, I also consider the RAK/RAL a real boatanchor sleeper, because everyone laughs it off, and I run away with it and smile........ Most folks seem to put it down, and have never learned how to use it properly. Maybe I am a rare bird wat has tamed its idiosyncrasies..... oh, well. Whether that is romantic or not, I dunno. But, it works fine for me, even on the BA/GB nets, or QSK with the big dogs on 3520, or bringin' in the weekly PX from WCC, or monitoring the silent periods on 600M.

The WWII era Hammarlunds are good general receivers. But, I would not consider them useful under modern band conditions as a serious receiver. That does not mean that they are not good boatanchoring receivers, but, it does mean that they won't cut it QSK QRQ or in CW contests or FD. (.... and yes, I have used an RAL with a BC-375 on FD....(:+}}.....). Only when you get to the HQ-180 or SP-600 class would they be a serious receiver. That is for CW, of course. The RAK/RAL I still consider a serious receiver, even though technically a dinosaur. It has all the practical elements that make it a good daily use receiver, including such mundane uncommon things as true audio-derived AGC, and excellent audio filtering. Hammarlunds just don't have it as well. On AM or SSB, they are all pretty good, if you learn how to properly operate them (and I am always curious why so many people have difficulties operating them on SSB --- hint, they don't use the RF gain properly).

So, I did not really want to put Hammarlunds down. I have a fond and long use of them in the shack. But, I am hard pressed to consider them serious receivers until you get to the late model end run types. The early ones drift too much, are touchy to use, and just not quite there. As a novice, though, I put up with that, and wrung out that ol' RBG for all it was able to give..... and then fell in love with the RAL and ``Big Bertha Radiomarine''. But, that is another sleeper story.....

Enuf tirade.....

73/ZUT DE NA4G/Bob UP

p.s. Hint..... the RBA is the only late model military Heterodyne receiver. Some unknowing hams that don't read their radio history tend to call them a ``direct conversion'' receiver. But, the technology of Heterodyne reception has been around as long as Poulsen's arc converter (pre-wwI). Guess there is nothin' new under the sun.

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: Re: Hammarlund RBG, SP-200/400's
Message-ID: <199612030509.XAA26327@lesol1.dseg.ti.com>

At 05:03 PM 12/2/96 -0600, Mike Knudsen wrote:
>
>... my service sheets show the SP-200 as having open-frame xfrmers with
>bell ends in the audio chain, while the 400 has the potted ones a la DX-100.
>My BC-779A has the latter. So I'd say the 779 is the 200 with 400-style
>xfrmers, which really means mil-spec xfrmers.

I've currently got eight or nine SP-200/210 series receivers, equally divided between military and commercial versions. All use the potted audio transformers, so, based on the evidence here, your service sheet's in error. Perhaps they really meant to refer to earlier Super-Pro's. TM11-866 cross-references the commercial SP-200/210's and indicates them to be identical with the military versions and even mentions that the audio transformers are the same in both.

>There were lots of 200-series versions, depenidng on which bands were included.
>You had 8 bands: 2 LW, 2 BC+160m, 3 octave-wide bands from 2.5 to 20 MC,
>and 20-40 MC. You could get the 3 2.5-20 MC bands plus any two others,
>it seems. This is from Moore's book.

Yep, the BC-779 and SP-210/200-LX covered 100 kHz - 400 kHz, plus 2.5 - 20 MHz in five bands. The BC-1004 and SP-210/200-X covered 550 kHz - 20 MHz in five bands, while the BC-794 and SP-210/200-SX covered 1.25 - 40 MHz in five bands. Only the BC-1004 and SP-210/200-X variants have frequency coverage which makes sense. The others all seem a tad strange.

>As hot as my 779A is, I'd like to ahve that 20-40 MC band during the daytime,
>but all in all I'd like the BC bands to give that 3-12 analog variable BW
>and P-P audio something to work on.

It's pretty good as old receivers go. The Super-Pro's selectivity was very good for the period. Unfortunately, high noise figure, significant drift and the lack of calibrated bandspread combine to make the 40 MHz SX versions disappointing to use on the high band. The fact that Hammarlund gave the SP-400-SX the same 40 MHz top end as the SP-200-SX series even suggests to me that Hammarlund couldn't get the receiver working up to 54 MHz. After all, it would seem logical to simply extend the basic SP-400-X coverage from 30 - 60 MHz. (Just a personal opinion, of course. No flames, please.)

Regards,
Bill Sorsby, N5BU   bill.sorsby@dlep1.itg.ti.com
Grapevine, TX 76051

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: "Douglas M. Gordon" <dmgordon@electriciti.com>
Subject: HRO price summary
Message-ID: <1.5.4.16.19961203092410.27d7c7d8@electriciti.com>

Hi HRO Anchorpersons,

I have had many requests to forward price information gleaned from the good folks who responded to my original request for help in pricing an HRO-50T1 with A,B,C,D coils and scales. No Calib and no speaker. Knobs ok. Small dings in cab, lots of deep scrapes and scratches. Some rust on chasis and cabinet. No feet, etc. Electrical condx unknown. So here goes:

#1 Jim: Unit with same coils and speaker(cosmetics rated "8")went for $350.
#2 Mike: $150 - $250. A 60T with lots of coils, calib, spkr, etc went for $400.

#3 Bob: $100 - $150 but coils worth $50 ea. A rack mount 50 with same coils went for $125.
#4 Tom: A near mint 50T-1 with 7 coils went for $300.
#5 Terry: $150 - $350. Suggests an offer $125 - $200 for elect. condx unknown.
#6 Al: $50 - $100 (but watch out for accesories - Calib. $65 - $100, Coils (AC, E, & F) $75 ea up. Spkrs $50 to $100.) Nice working 50's should go in $250 - $300 range.

Thanks again to you gents. Hope this helps every one who asked for a summary.

73,

Doug K6PUN
Carlsbad, CA

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: David Adams <adamsclan@netgate.net>
Subject: I (finally) have a garage story!
Message-ID: <32A49F75.72F0@netgate.net>

Greetings! I just got back from a 2 week trip back home and finally have a garage story to tell.

I was sitting at the Thanksgiving table with my family and my grandfather was asking me about my radio "stuff." We talked for a while, and I told him that I had just noticed on a map the other day that I grew up about 60 miles from Benton Harber and didn't have a clue that heathkit even existed...I was within an hours drive during the great liquidation...argh!...Well, his eyes perked up and he says..."would you be interested in an sx...uhm...." No need to say more I just said "YES". He ran for his shoes and said come out to the garage. Went out and he pulled a box from the shelf and pulled out a Hallicrafters SX-53. Good shape (presumably hosed inside). His brother had bought it new and took it out of use in about....I don't know...used it for a couple years, bought a new model and put this one on the shelf. Neat...I didn't think this sort of thing ever really happened. Well, I put it in my trunk and it made the trip back to Cali with me and is in line for restoration.

Neat...I also go a box of NOS tubes...have to dig through those.

73 de dave, n9uxu

Oh...a bunch of SASEs for manuals came in for manuals while I was gone..I will get them in the mail asap.

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: john <johnmb@pop.mindspring.com>
Subject: KD4CPL and Fair Radio
Message-ID: <199612032230.WAA15812@mule1.mindspring.com>

No sooner had Nick commented on the Dymo font for the Fair web page, then the new flyer catalog arrives with a fancy new computerized font!

Nick... do you have swat, or what?

Several interesting goodies in there too!
/John

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+----------------------------------------------------------------------------+
                  John Brewer                 johnmb@mindspring.com
                  WB5OAU/4                 AMI #24
  Vintage Gear web page: http://www.mindspring.com/~johnmb
+----------------------------------------------------------------------------+
```

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: don merz <71333.144@CompuServe.COM>
Subject: Literature Etc. FS
Message-ID: <961203190936_71333.144_DHB69-1@CompuServe.COM>

Vintage Radio Literature For Sale and Wanted

CONTACT: Don Merz, N3RHT: 47 Hazel Drive, Pittsburgh, PA   15228.
412-234-8819 (weekdays, EST or leave a message anytime).
71333.144@compuserve.com   Trades and offers welcome!

RADIO MAGAZINES

73 Magazine. Some of these are rippled at the edge from exposure to moisture.
1961: 12: $2
1962: 1,2,3,4 (2 copies),8,9,11,12: $1.50 each
1964: 3: $1
1965: 5,7,8,9: $1 each
1966: 1,7,8 (2 copies),12: $1 each
1967: Complete: $12
1970: 7,8,9: 50 cents each

QST: 1925: 1,7,8,11: $5 each
1926: 2,3,4,8,9,10,11,12: $5 each

1931: 7,8,9,10,11,12: $3 each
1936: 1,2,3,5,7,8,9,10,11: $3 each
1939: Complete: $30
1940: 3,5,6,8,10,12: $2.50 each
1942: 1,2,3,4,5,6,8,9,10,11,12: $2.50 each
1944: 1,2,3,4,5,6,7,9,10,11,12: $2.50 each
1945: 1,2: $2 each
1946: 3 (cover loose): $1
1948: 1,12: $1.50 each
1949: 1 (cover loose): $1
1951: 1,2,3,4,5,6,7,8,9,10,11: $1.50 each
1958: 4: $1.50
QST 1978-1982 complete in QST binders. Like new. $30 for 5 years and binders or will sell individual years for $9 plus $5 4th class postage
CQ Magazines: $1.50 each or 4 for $5
1946: 4,7
1947: 5, 10 (2 copies), 12 (2 copies)
1948: 11
1969: 6
1972: 8, 9
More CQ Magazines: 87, 88, 89, 90, 91, 92: $4 per year

Radio Call Book Magazine and Technical Review: February, 1932: $8
June, 1932: $8
AWA OLD TIMERS BULLETIN ($2 each):
1990: 2,8,10
1991: 2,5
1993: 11
1994: 5,8
1995: 8

Popular Mechanics: $3 each. All of these have great radio, electricity and aviation articles. All have some minor binding edge deterioration but all have excellent covers except one (noted below).

1929: 1,3,4,7,8,9,11,12
1930: 1(no cover-$1), 2,3,4,6,8,9,11,12
1931: 1,2,3,6,7,8,9,10,12
1932: 1,2,3,8,9,10,11
1933: 2
Modern Mechanics: 1929: 12: $3

New Jersey Bell Telephone Company interanl magazines. These have lots of good articles and photos and average 35 pages long. Covers are just fair condition and some are loose. All are $5 each: February, 1930, May, 1930 (article on "2-way Television"), August, 1930 (photo-essay "A Day With The Supply Forces"), September, 1930, October, 1930 (Teletype Police Alarm System).

VARIOUS HAM AND WIRELESS LITERATURE, HB=HardBack, PPD=Postage PaiD

Rider, Alternating Currents in Radio Receivers, 1937. Part of the orange-covered "Hour A Day" series. Very good. $9
A.C. Gilbert "Boy Engineering," 1920. Catalog and stories including an Interview With Thomas A. Edison. Very Good condition. $28
Thordarson 344-C Transmitter Guide. 1939. Excellent original. $20
Sterling, The Radio Manual, 2nd ed., 1929, Van Nostrand. 2nd edition of the famous Van Nostrand series with many photos of commercial broadcast, marine and aircraft sets. Some ham and military coverage too. Decent theory sections. Edited by R. S. Kruse who was just about to make history with James Millen at National at the time this was published. Excellent condition hardback with torn dust jacket. $20
Bucher, Practical Wireless Telegraphy, 1919. Nice hardback. $21 HOLDING
Bucher, Elmer E., Vacuum Tubes in Wireless Communication, 1919. Excellent hardback. $22
Ballantine, Stewart, Radio Telephony for Amateurs, 1922. Some edges frayed on the cover of this otherwise nice hardback. $23
73 Magazine DX Handbook, 1968. With DX Zones of the World Wall Map. $6 PPD
RCA. Air Cooled Transmitting Tubes. 1938. Cover stained and a bit loose at the binding edge but manual is otherwise good: $11
Stancor Hamannual, 1939, 4th ed, excellent: $18
RCA Manual For RCA Victor Dealers. Small looseleaf binder with contents dated 1929-1931. Cover R-series radios, AP-series power amplifiers, early RCA tone arms and tubes like 871, 869, 217 and 204A. Excellent. About 100 pages. $27
RCA, Announcing Radiolas, Radiotrons and Accessories, large-format Brochure not dated. Covers Radiola Super-VIII, Radiola 30, Radiola 2x series, RCA horn and cone speakers and tubes like 199, 200, WD-11, WD-12, etc. 35 pages. Some water stains on front. $27
Cornell-Dubelier Capacitor Manual for Radio Servicing, 1939-40 (1st edition). Excellent. $9
1961 Radio Amateur DX Guide by H. J. Nelson. Published by Radio Amateur Call Book, Inc. Very good. $5 PPD
ICS Radio Operators Handbook, 1924, 1st Edition. HB: $12
CQ-DX Annual. 1948. 1st Edition, 1st Printing. $5 PPD
Bell System Technical Journal, Index to Volume 9, 1930: $2 PPD
Editors & Engineers Handbooks, Wm. Orr, ed.
  1962, 16th edition: Excellent hardback. $17
  1978: Excellent hardback. $15
Allied Dictionary of Electronic Terms, 1961. Cover has some stains but this is otherwise like new. 80+ pages with hundreds of photos and diagrams. $3
Ameco Amateur Radio Theory Course, 1978. Excellent. $2
Radio Shack "Now You're Talking" ham license training book. $3

ARRL (Vintage) BOOKSTORE

1985 ARRL Handbook. Very good. $7
1986 ARRL handbook. Very Good. $6
ARRL Mini-Log. Spiral-bound, wallet sized station logbook. Unused. 1964. $4 each PPD. 3 to sell.
Course in Radio Fundamentals. George Grammar, 1942. Binding edge is deteriorating. $10 PPD
Radio Amateur's License Manual, 1964. Edge taped nicely. $3
Radio Amateur's License Manual, 1968. Fair. $2
Radio Amateur's License Manual, 1969, 62nd ed., very good. $4
Radio Amateur's License Manual, 1971. Good. $3
Learning The Radiotelegraph Code, 1971. Cover edge bad. $4
How to become A Radio Amateur, 1964. Good. $5
How To Become A Radio Amateur. Cover taped. 1970. $3
How To Become A Radio Amateur, 1974. Excellent. $5
Specialized Communication Techniques, 1977. Excellent. $7 PPD
200 Meters and Down. 1981 reprint. Excellent. $8 PPD
Ham Radio Operating Guide, 1976. Good paperback. $4
The Mobile Manual For The Radio Amateur, 4th ed., 1968. This would be almost mint except for a 2: fold mark in the front cover in the lower right corner. $10
Radio Amateur's VHF Manual, 1965, 1st ed. Cover well worn. $6
Radio Amateur's VHF Manual, 1972, 2nd ed. Cover shows age. $7
Tune In The World With Ham radio, 1976. With Student Workbook. Good paperback. $5
HF Antenna Anthology, 1978. Good paperback. $5
Radio Amateur's VHF Manual, 1965, 1st edition, shows some age: $9
Antenna Book. 1968. Binding edge loose. $8 PPD
Fifty Years of the ARRL, 1965. Excellent. $6

CALL BOOKS

1959: Radio Amateur Callbook Magazine Vol 37, 1959. US and Foreign. Cover partly loose. 500 pages of US listings and 230 pages of Foreign listings. Good condition. $12 PPD
1960 DX Callbook (Foreign). Very Good Condition. $10
1963: Foreign Radio Amateur Callbook Magazine, good. $10 PPD
1968: Foreign Radio Amateur Callbook Magazine, good. $9 PPD
1971-72 Foreign Radio Amateur Callbook. Good: $5
1979 Foreign Callbook. Good softcover. $5
1980 U. S. Callbook. Excellent softcover. $5
1983 Foreign Callbook. Good softcover. $5
1984-85 ARRL Call Directory. Excellent. $5

CATALOGS/ADVERTISING

Heathkit SB-200 original manual. Like new. $14
Hammarlund PRO-310 Communications Receivers original sales flyer. Like new: $10
B&W catalog from about 1960. Shows 5100 and etc. Like new. $11
Hammarlund HQ-110 brochure. Mint. $9
Burnstein Applebee 1941 Catalog, Cover a bit raggedy: $10
Burnstein Applebee 1942 Catalog, Cover loose but otherwise excellent: $13
Burnstein Applebee 1949 Catalog. Cover loose, torn and frayed at edges. Otherwise nice. Includes mailer. $6
Burnstein-Applebee 1970 catalog. Excellent. $5
Burnstein-Applebee 1973 catalog. Excellent. $5
Eisemann Brochure; Audio Frequency Amplifying Transformers, small. I'm guessing late-teens or early 20's. $1

BOATANCHOR MANUALS

Collins 51J3 Sams photofact copy, copy of articles from Collins Collectors Magazine on 51J-series, connection diagrams from 51J manuals. $5.50 PPD
Federal Telegraph and Radio Company, Instruction Book For FT-152A/B25A 2-way FM low-band radios. Operating and maintenance. Cover ripped. $5
Hallicrafters HT-4I original manual. This is the original Hallicrafters manual for the post-war HT-4--looks like a BC-610 to me. The HT-5 speech amp and all the coils and tuning units are covered too. $30
Hallicrafters Service Bulletin for the S-41G and S-41W dated 2/46. Photocopy free for 2-stamp LSASE to address above.
Hallicrafters S-39 Manual copy: $7
Hallicrafters SX-101 Mark III fair photocopy: $5 PPD
Heathkit SB-104 Transciever original Assembly Manual. Excellent: $15 PPD
Heathkit SB-201 linear amplifier assembly manual. Original. Complete, $15 PPD
McMurdo Silver 700 UHF transmitter original manual. $11
McMurdo Silver 800 UHF receiver original manual. $11
National NC-300 manual, original, in fair condition with loose pages and some water-spotting: $9 HOLDING
Swan 250 manual photocopy. $6 PPD
Teletype Manual Sets. I have extra copies of Teletype manuals for Models 32 and 33. These run 2 to 5 volumes and are in Teletype 8-1/2" by 11" binders. $10 per set including 4th class book rate CONUS mailing.
Western Union Telex 32 Sender-Receiver operating instructions, excellent: $3

MILITARY LITERATURE (Originals)

SIG 660-60 Reference Data For Fixed Station Communications Equipment, 1953. Published by The Signals School, Fort Monmouth, NJ. This shows photos and specifications for the very biggest boatanchors. The BC-610 is shown and it is about the smallest radio in this 100+ page book. $25

TM 11-454 The Radio Operator: $9

U.S. Navy 1946 The Bluejackets' Manual. Excellent. 600+ pages. $13

U.S. Navy 1946 "Your Navy." Near-mint. 450+ pages $13

Pilot's Radio Manual, 1940. Civil Aeronautics Administration Bulletin #29. How radio works. How planes use radios. Specific, detailed instructions on using radio for air navigation and communication. Terrific! Excellent condition. This is not a military manual. But any military collector with an aircraft interest would find this worthwile. $23

BC-640A Preliminary Maintenance Instructions manual. Like new. $14

Navy Model OBL-3 Oscillograph original manual. This is the Trumph 841 'scope. $9

FM 21-100 Basic Field Manual, Soldiers Handbook, 7/23/41 as ammended through 12/28/42. Good. $10

Electronic Warfare, How to Train A Combat Batallion To Fight In An Electronic Warfare Environment. Dept. Of The Army Training Circular TC 32-10, 1975. Profusely illustrated 20 page pamphlet. $9

NAVSHIPS 250-660-2 "Basic Principles of Turbine Electric Drive." March, 1945. With 2 1960's dated laminated cards showing different turbine specs by model and other data. Also includes 2 "Special Liberty Pass" forms (blank) from the U. S. Naval Training Center at Bainbridge, MD. Excellent. $10 PPD

NAVSHIPS 900,016, Radar Electronics Fundamentals, 1944. Good condition but binding edge shows its age. $8

NAVPERS 10188, Electronics Technician 3 Training Manual, 1954, excellent: $8

Navy Model MN Radio manual, 1942. The MN was an early Link-built wideband FM set for use on minesweepers and other small ships working together. Contract NXs-3834, April 20, 1942. Lots of markings on front cover but excellent overall condition. $10

Navy Model MN-5 Radio manual, 1944. The MN-5 was a later version of the MN. Contracts NXsr-41011 & NXsr 48343, November 8, 1944. Binding edge is deteriorating, otherwise very good. $9

Military FM 21-76 Survival Field Manual, October, 1957. 284 pages. Near-mint. $10 PPD

First Armored Division Yearbook from 1952. Covering Combat Command B stationed in Fort Hood, Texas. About 150 pages of excellent B&W photos showing the training and deployment of the Division. Only a few radio shots. Lots of Armor and light weapons shown in use. If you knew anyone in the First Armored in 1952, then their photo will be in this book. Teriffic! $26

ARN-14/14C Manual TO-12R5-2ARN14-12. $2 each. 2 to sell.

Military test gear original schematics: LAF-2, CT-400 and I-245B. All 3 for 4-stamp 8-1/2x11 SASE.

OTHER MILITARY LITERATURE (PHOTOCOPIES shipped Postage Paid (PPD))
These items are only copied when your order is received. Please allow at least 3 weeks for delivery.

TCS Partial Manual, covers the TCS-7 through TCS-12 sets along with all the

usual accessories. Includes installation, maintenance, schematics and parts list sections. Theory sections are omitted (about 100 pages). $16.95 PPD
TM11-230C, Radio Set SCR-694C (BC-1306) manual photocopy. 1944: $19.95 PPD
Number 19 Mark III manual photocopy. Identical to the U.S.-made set, but for the Canadian and British versions. Decent, complete copy: $14.95 PPD
Navy WWII DAG direction finder manual photocopy $18.95 PPD
TM 11-487 Chapter 14, RADIO EQUIPMENT Photocopy. 1944. $13.95 PPD
Covers ALL ground-to-ground radio equipment in service in all branches of the military in 1944. Does not cover radar, airborne and beacon gear. Photos and some diagrams (not schematics) are included. 131 2-sided pages.
ECOM-4451, HISTORY OF THE SQUAD RADIO Photocopy. 1976. $11.95 PPD.
Covers the development of the "Handie-Talkie," from the earliest days (BC-611/PRC-6) through the "helmet-radio" (PRT-4/PRT-9) variations. Photos and diagrams are included. Backpack radios are not covered but some European sets are. 98 2-sided pages.
TM 11-235 BC-611 Use/maintenance manual copy. 1945. $16.95 PPD.
Military T-368/URT Transmitter Manual excerpt, just a few pages. Free for 3-stamp LSASE.

WANTED: 1930's 1" and 2" oscilloscopes--any brand.

WANTED: MANUALS (originals preferred, photocopies okay unless noted)
Bliley CCO Crystal Oscillator manual
Swan ST-1 antenna tuner manual
RCA Radiomarine Cruisephone 35 manual. This covers the 2mc marine HF band with 6 crystal-controlled channels. Runs on 12vdc
Sprague Kwik-Test KT-1 capacitor checker manual.
Tektronix manuals for plug ins: 5B10N (single time base), 5A12N (dual trace amplifier), 5A15N (single trace amplifier), 5A21N (differential amplifier) and 5A13N (differential comparator amplifier).
HP 5300B Counter manual with 5302B clip-on manual
Silver Sparx Model 905 signal tracer manual
TMC multicoupler AMC-21/50 manual
Gonset aircraft converter manual for model 3014 or 3015. Covers 108-128mhz.
RCA Victor Victrola 7-TR-3 open reel tape recorder manual, Sams, any info
Supreme 189 Signal Generator manual copy (Model 589 is the same electrically)
Manual for Tektronix "K" plug-in
Manual for Millen 90810 VHF transmitter
Manual for the Patterson PR-16 receiver. I only have the chassis--no cabinet. The chassis is chrome, it has 17 tubes, a Meissner S-meter and separate but overlapping round tuning and bandspread dials. The main tuning dial has a slotted window disk that covers bands not in use. The output stage is push-pull 42s. I have the Riders stuff on Patterson but I can use the manual or copies of any magazine articles, etc.
Manual, schematic or any information needed about military power supply PP-4763/GRC made by Christie Electrical Corp. under contract # PAA807-67-C-0637. This is a 28VDC, 50 amp regulated supply.

Military OBL-5 oscilloscope manual
Manual or ad reference or any information about Carron Model CCA Audio Beat Frequency Oscillator. This small piece of test gear has a beautiful brown, gold and gray painted front panel. It uses 6 volt metal tubes and a 6U5 tuning eye. Any help with this one will be appreciated.
Jackson Model 112 Condenser Tester schematic, Riders, or ??? Manual??
Military TBX-6 manual. Will pay your price for an original (I already have a copy).
Military AM-1249/U Audio Amplifier manual
Hallicrafters HT-4B Manual. As close as I've been able to come to this one is a manual copy from an HT-4C. I'd love to have a real "B" manual though, even a photocopy.
Millen 90881 500W Amplifier Manual

WANTED: REFERENCE LITERATURE

JANAP 161 (military predecessor to the MIL-HBK-161)
Army TM-11-227 (directory of radio gear). Pay your price for an original.
Navy Ships 275 Catalogue of Radio Equipment
TM-11-486 Communication Systems Engineering
TM 11-387 Ground Radio Survey
CQ MAGAZINE: 1945: All except 8,9
1946: 1,2,5,6,8,9,11,12
1947: 1,4,9,11
1948: 1,7,10
1949: 9,11
1950: 9
1954: 7,11
1960: 6,8,9,10,11,12
1961: 3,4,6,7,8,9,11
1962: 1,2,3
1963: 9
1965: 2,12
1966-68: All
Also need extra copies of 10/46, 9/49, 6/58, 11/60 and 7/61.
RADIO magazine, 1934 and earlier, January, 1936, or 1942 - 1946
ELECTRONICS magazine, December, 1940 or a copy of the story on the Westinghouse HR transciever in that issue.
QST Magazine: 1921: All except 10,11
1922: All except 7
1923: All except 1,2,9
1924: 1,2,3,5,7,11
1928: 3,4,5
1925: 1,5,6,10
1927: 1,6,8,12
1928: 3,5,6,7,8,10,11,12
1948: 6
1950: 12
1953: 1,8
Radio-Electronics: 11/51.
Radio News: Any WWII issues with military cover photo.
ARRL Handbooks: 1926, 1937, 1941, 1968, 1980 - 1984, 1986 - 1990
AWA Review Volumes 2 and 5
AWA Old Timer's Bulletin: Any issues from Volume 17 (1976) or earlier, and:
Vol 18 (1977): Nos 1, 2 & 4
Vol 19 (1978): Any
Vol 20 (1979): Nos 2, 3 & 4
Vols 21 - 27 (1980 - 1986): Any
Vol 30 (1989-90): 2
Vol 33 (1992-93): 1
Any issues of the RCA Review

KEYS

Military Key W.T. 8 AMP No. 2 Mark III. Used in many WWII radio sets.
Nice shape. $45
Bunnell straight key with shorting bar. Poor condition. $10
Signal Electric solid brass straight key. Nice. $55
Pentoy "Star Signal Set" code practice buzzer. Paint is long gone
but this must have been a cute 1920's or 30's code toy. As-is. $19

CONTACT: Don Merz, 47 Hazel Drive, Pittsburgh, PA 15228
412-234-8819 (weekdays, EST)
Internet: 71333.144@compuserve.com

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: Richard Hager <rhager@millcomm.com>
Subject: Re: Lucite Paper Removal
Message-ID: <32A3DCCC.67DE@millcomm.com>

km1h@juno.com wrote:
reflector in case it may be helpful.

> Many of the commercial test equipment and other resellers use a product
> called "GOO GONE". Cheap also at Wal Mart, etc. I have also seen
> something similar in a spray can but forget the name but a friend uses it
> to clean up computer equipment for resale.

Yes, googone is some goooood stuff.

But let me offer another suggestion....

After restoring many scopes (why MUST people put horrible inventory stickers and tape on the FRONT panel!!???) I have found that the best FIRST method is the heat-gun.

A decent heatgun or even a hairdryer will remove 90% of all labels and tapes, and the adhesive almost always comes up with the tape, except for small lines of residue. These lines are usually so small that they come off easily with 91% isopropyl alcohol from the drugstore.

This combination of heatgun and alcohol is very very safe, in regards to not stripping paint or lettering off the instrument.

If the above technique doesn't work, then out comes the acetone, MEK, trichlorethane, etc.. And the exhaust fan goes on high!! But these solvents will almost always damage paint and lettering so the work becomes very painstaking and fatiguing.

The only labels the heat gun doesn't work very well on are the paper labels with water-based adhesive (like stamps used to be). That adhesive does not soften with heat. I use hot water and 5 minutes of rubbing with a finger and fingernail for these.

Isn't it amazing that out of all the tools in your shop, the human finger -still- is the best tool to use for this!? Zero chance of damage to the instrument, and your fingerprint seems custom made for 'rolling up' adhesive and abrading label material away. Ain't evolution grand?

Hope this helps a little.

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ http://www.gdic.com/ahha email: ahha@gdic.com -

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Spencer Petri <spetri@e-tex.com>
Subject: More BA aromas
Message-ID: <m0vV4BY-0000m9C@e-tex.com>

Hello BA Sniffers,

In my case I think the most appealing BA aroma eminates from my BC-221AK. Worth getting it hot just for the smell. It must be the wooden case that adds to the "phenolic" odor. A close second would be the old S-36. Aaaahhhh!

73 de Pete WA5JCI

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: vancleef@netcom.com (Henry van Cleef)
Subject: Re: National RCP *nightmare*
Message-ID: <199612030434.VAA08286@netcom21.netcom.com>

As Lawrence R. Ware discourses
>
> First the story: This is my second RCP, picked up months ago at
> the Shelby hamfest... The seller discribed it as "working, but not

> great." It was clean, and I needed another because my first one
> with a bad main power transformer and in much poorer cosmetic
> shape looked a *lot* like a parts unit when I saw this one.
> Now months later serious work on the second RCP has begun...
>
> A close study of this unit gathered the following bits of info:
> 1) Unit has been recapped, with Black Beauty's! :-(
> 2) All the IF cans are full of dead critters and critter leavings.
> 3) Sometime in it's life, it was *extensively* modified. :-(
>
> Anyway if any of you have heard of these or similar mods to National
> radios, or if you have something from an old QST, I'd love to hear
> from you.
>
> I like the old Nationals far to much to want to end up with
> *two* parts radios, and I'd also like to know what someone was
> *trying* to accomplish here.
>

I've deleted much of the war story's details about mods that don't really make any sense to me.

I think that the answer is fairly simple. If you want a National RCP, build up one chassis as a National RCP. You will want to study the two chassis you have, and make extensive sketches before disassembly, because component placement may be critical and not obvious from the schematic.

I used this method to build up a "brand new" Meissner EX Signal Shifter from a couple of sad-looking parts units. One approach is to remove all the parts from both chassis after making notes. Clean up all of the IF cans you have (and make sure you know which IF goes in which position), and take the cleanest for your construction project. With the chassis bare, you can clean it up, and clean and test each of the components you have available. To make life easy, use a solder sucker to clean off all terminals, so you are working with "new" parts.

It's your choice whether to make a new wiring harness or use all new wiring. I recommend using the standard RMA color codes used in the forties for new wiring, even if the radio didn't have this to begin with. Also consider the placement of phenolic terminal strips. There are places (such as detector/AVC wiring) where it may be easier to build these up as subassemblies and install them. Consider your grounding scheme, particularly if you are using new passives. Mylar caps are much smaller than the old papers, so you can generally pick new ground points that not only give short leads, but are closer to the circuit.

In short, set yourself up a "do it yourself--Heathkit" type project and work it from there.

So far as modifications to factory designs goes, I am not allergic to them, but I rarely do any. For one thing, the original design got a lot of bench testing. For another, any modification you make to the original circuit is very likely to upset something else. Unless you are prepared to do a thorough design review of your new setup----and that means looking at every circuit in the radio----and debug any problems, I'd stick with the "factory original." There are very few modifications that will actually improve anything, other than things like 3-wire cords, fuses, modern high voltage filter caps on the primary power, and diodes across meters for protection. Also, consider the original manufacturer and remember that you are trying to walk in the shoes of folks who did these designs for a living, day in and day out. Consider what it would be like to sit in a design review with the original designers and justify your changes to them. So far as I know, virtually everything that came out of National, Hallicrafters, and Hammarlund was well thought through to begin with.

So far as mods published in QST and some of the other ham magazines, I would not be too hasty to follow through with them just because they got published. I think that there are some that are worth considering, but there are an awful lot that aren't. And I think that the days of modifying "cheap surplus" BC-348's to get a ham receiver are over---if you want a first-class ham receiver, start with one that was good to begin with, and build it up as "new manufacture." If you want a nice National radio, build up your best chassis and components as a nice National radio, and enjoy it. If you want Collins R-390 or Hammarlund SP-600 performance, go get one.

I think it's well-known on this list that my RME-45, which started out here as a parts unit, got some modifications, and is not "strictly stock." What drove the modifications were the need to adapt a 750 VCT power transformer to a design that was marginal and overvolted with the original 670VCT transformer. But I'll point out that I had to review every circuit in that set, change a lot of wiring around, and when I got done, chase down a nasty parasitic and "tailor" the performance of the RF and converter circuits on the bench. I certainly wouldn't suggest to every RME-45 owner that they do what I did to the circuits. One of the first things that happened to that RME-45 was the removal of some QST mods that made a total hash out of the detector circuit. The QST circuits might have worked well in an S-40, but they had totally wrong impedances and loading of the RME IF and audio.

I'm assuming that the two National sets you have are essentially complete. If you want to try your hand at radio design, first build up the nice National radio using your best parts.   Then use the leftover parts for experimentation.

```
--
===================================================================
Hank van Cleef
E-mail vancleef@netcom.com or vancleef@tmn.com
===================================================================
```

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: "Paul Bock" <pauboc@smtplink.pulse.com>
Subject: Navy Morse research project
Message-ID: <9611038496.AA849647157@smtplink.pulse.com>

Boatanchorites,

I am kicking off a long-term research project to document the history of the use of Morse telegraphy by the U.S. Navy and U.S. Marine Corps, from wireless (spark) telegraphy to CW to the demise of its use in the late '60s and '70s. The goal of the research is to privately publish a book on the subject.

To cover the subject sufficiently I'd like to include photos of relevant USN/USMC material: Transmitters & receivers, ship's radio rooms, keys, headsets, practice sets, handbooks, code/authentication books, training & qualification procedures for operators, school curricula, etc. In addition, I'd like to interview as many people as possible, going back as far as possible, on the equipment, techniques, and operating procedures of WWII, Korean War, Vietnam, etc., and even further back if possible.

Obviously, being a collector I'd like to add some distinctly Navy/MC keys and bugs to the collection. I'd prefer cash transactions although some trades might be possible (I have limited trading material). The same goes for relevant written materials (RM training courses, for example, *if* they specifically relate to Morse use).

In lieu of having the actual "collectibles," however, I'll settle for sharp color or B&W photos of hardware, operator aids, printedf matter, and readable photocopies of text material for study/research. Relative to photographs, I will pay for all photography including film & other disposables (flashbulbs, etc.), developing & printing, and mailing costs. For printed materials, I will cover the full cost of reproduction and mailing. All materials will be fully identified as to source and appropriate credit given in the finished publication.

If you'd like to assist me in this effort, and/or know of knowledgeable individuals who might be willing to be interviewed, please e-mail or write to the address below.

This request will also be forwarded to the Boatanchors List, the Naval Cryptologic Veteran's Association, and the U.S. Naval Institute. If anyone wishes to post or forward it to other appropriate forums, please do so (no advance permission required).

Thanks for your time.

73,

Paul, K4MSG
(Member, NCVA & USNI)

Paul H. Bock, Jr. ETCM (USNR-RET)
38661 Pheasant Hill Lane
Hamilton, VA 20158

E-mail: pauboc@pulse.com
(Home) (540) 882-4745
(Work) (703) 471-2900 ext. 4536

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: WPUL1130@CONCENTRIC.NET (LLOYD A. SCOTT, JR.)
Subject: Need Help
Message-ID: <32a49dd8.56840204@SMTP.CRIS.COM>

I recently picked up the following, does any one know anything
about it or have a manual:
Northern Radio Company
F.S. Diversity Converter
Type: 174 Model 1
Any help will be appreciated, 73's
Lloyd
"Where Destructive Maintenance Is Our Most Important Product"

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: gpewitt@execpc.com
Subject: RE: Need Help
Message-ID: <Chameleon.961202232155.gpewitt@execpc.com.execpc.com>

A diversity converter was used to connect two receivers to a

teletype unit. Each receiver would have it's own antenna setup usually quite different in nature. The converter would monitor signal strength on the two receivers and pick the stronger of the two. As fading occurred one would most always be stronger than the other. Some setups used two R388's or two R390's. Teletype, unlike packet, had no error correction so this made a big difference in signal quality.
I have a CV31D/TRA7 myself. Beautiful unit if you don't get a hernia moving it around.

snip
>Northern Radio Company
>F.S. Diversity Converter
>Type: 174 Model 1
>Any help will be appreciated, 73's
>Lloyd
snip
>

Name: Gary Pewitt N9ZSV/KT
      6120 W. Calumet Rd. Apt 204
      Milwaukee, WI 53223
      414 355 8147 Home 414 297 4307 Work
E-mail: gpewitt@execpc.com

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: TPHAAK@ccmail.monsanto.com
Subject: No Subject
Message-ID: <0030400001971202000002*@MHS>

Gang,

I recently picked up a pair of CV-57 tty converters and a CV-89 converter.

The CV-57 converter attaches to the last IF while the CV-89 is designed to except 600 ohm audio. I plan to use both and see which works out better. I have the manual for the CV-57 but need a manual for the CV-89 converter. Can anyone help?? The CV-57 has an internal 50kc IF followed by audio filtering. Looks pretty effective for its era but I don't know how it would hold up to the newer IC filtered converters that were popular in the 60/70's.

The next tty venture I got myself into was dragging home a Model 28ASR. Seems I wasn't happy with the KSR28 and I had to have

> something that would punch tape so now I have another beast in the basement. She(?) is in excellent shape. Seems the last owner had the printer magnets hot-wired directly to his FSK converter so I am at a loss with not knowing how to utilize the rest of the machine (keyboard, and tape reader). There is a very long terminal strip along the back inside which has the secret I am sure. Can anyone help me with regards to the numbered strip and or a manual specifically on the ASR28? I have books on the KSR28 but the internal wiring connections are different.
>
> The end goal with this mechanical madness is to sniff the electron saturated oil that these lovely Bell Telephone machines generate. It is great stuff!! Now as for the 5-level signals that are out there, yes there still is a net or two that I can receive plus ARRL sends all their bulletins in 5-level 60WPM.
>
> The only other comparable odor might be from my dynamotor rigs but I prefer the tty.
>
> Speaking of smells, what others out there have their own signatures??
>
> Tim WA0TSY
> tphaak@monsasto.com

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: BEN NOCK <106312.1035@compuserve.com>
Subject: Obtaing a Bank Draft ??????
Message-ID: <199612031342_MC1-CA0-75AC@compuserve.com>

Hi, some kind soul sent me a message regarding getting Bank drafts in the US, cheaply.

Unfortunatly, the mouse ate the message (thats my story anyway) before I could save it. As it might be of use to others wanting to get stuff from abroad, can the nice gent please resend it to me.

Many thanks. Ben G4BXD

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: "Barry L. Ornitz" <u856010@eastman.com>
Subject: RE: On replacing 'lytics and 'lytic chemistry
Message-ID: <Pine.ULT.3.91.961203194131.15665A-100000@dua150.kpt.emn.com>

With work being rather hectic lately, I am currently running about 15 digests behind, but quickly scanning through them I saw this thread which

I wanted to comment on.

On Thursday, November 28, Roberta Barmore wrote:

> The trouble with putting [electrolytic capacitor] replacements
> under the chassis is that you've left a can or two of semi-
> caustic goo above the chassis, waiting to drizzle out and make
> a mess of things. I don't like that, and prefer to yank 'em
> out.

Then on Friday, November 29, Carl Huether wrote:

> BULL simple and plain................ A disconnected Can
> Electrolytic has about as much of a chance of continued
> leaking on your precious radio (in your lifetime anyway) as
> Madonna has of becoming a nun. No electroylitic action...no
> problem unless someone has discovered a miracle. If you are
> really concerned just scrape off the old leakage crud as much
> as possible and seal the old capacitor connections with some
> RS or WalMart epoxy.

As Hank van Cleef and Sandy Blaize have already pointed out, this is wrong and Bobbi is quite correct. I think the misunderstanding here is because people do not really understand the chemistry behind electrolytic capacitors.

To begin with, there are three types of electrolytic capacitors - only one of which is named appropriately. The original wet, or liquid- filled, electrolytic was the first type to be introduced. The later "dry" and "solid" electrolytic capacitors are really still wet.

The process upon which all electrolytic capacitors are based is the formation of an insulating anodic oxide film on a metal in the presence of an electrolytic (ionic conduction) bath. Tantalum and aluminum are the two metals of commercial importance here, but electrolytic capacitors have been made with niobium, zirconium, tungsten, and titanium. According to Young ("Anodic Oxide Films", Academic Press, 1961), the first to patent an aluminum electrolytic capacitor was C. F. Pollak in 1987. Tantalum and niobium capacitors were investigated by Guntherschulze a few years later. The first commercial tantalum capacitors came in 1925.

In a typical aluminum electrolytic capacitor, the positive electrode (anode) is usually a thin metal foil. The negative electrode (cathode) is the conducting solution in contact with the metal foil. In the formation process, a current is passed from the foil to the solution. Typically a hot aqueous borate solution is used with a constant voltage between the foil and the electrolyte. As most of us have seen when "re- forming" a capacitor, the current is initially high but quickly drops with the formation of a thin metal oxide coating on the foil. It is this thin oxide coating that is the real dielectric in the capacitor. A second aluminum foil electrode is used as a "counter-electrode". Its sole purpose is to provide electrical contact to the actual wet electrolyte that is the true negative terminal in the capacitor. Hydrogen can sometimes be evolved at the counter-electrode (which is a failure mode) and chemicals are often added to the electrolytic solution to prevent this. Hydrolysis of the thin oxide film is another failure mechanism and it may be minimized by the addition of other chemicals to the electrolyte.

In the original "wet" electrolytic capacitor, the electrolyte remains as a liquid solution. The so-called "dry" electrolytic is made with a paper or other porous separator impregnated with the electrolyte between the anodic oxide coated foil and the counter-electrode foil. The electrolyte is generally boric acid with a small amount of water in ethylene glycol or glycerin. Sometimes high molecular weight sugars are added too with many proprietary chemicals. The end result is a paste with good electrical conductivity yet one which maintains its water content and flexibility over the required temperature range. As long as the air to which the paste may be exposed to has greater than a certain minimum relative humidity, it will maintain its water content.

If one thinks about this construction, it is easy to see why electrolytic capacitors do not work well at radio frequencies. The actual anodic oxide film is a low-loss capacitor. However the external negative terminal is connected to the counter-electrode. Ions must migrate through the electrolyte to reach the oxide film. The electrolyte not only provides internal series resistance, at higher frequencies the ions may not migrate fast enough to reach the oxide film before the polarity of the external voltage reverses. At radio frequencies, an electrolytic capacitor behaves more like a resistor than a capacitor.

The so-called "solid" electrolytic capacitors are a more modern invention and they tend to be found mainly with tantalum construction. Manganese dioxide (the black stuff normally found in regular carbon-zinc primary batteries) is used to replace the paste electrolyte. It is applied in a high temperature process which tends to damage the anodic oxide. This is normally partially repaired by repeat anodization in a dilute aqueous solution. The result is a solid structure but it is still moist to some extent to provide electrolytic conduction. These capacitors are very limited in their voltage ratings.

A truly dry construction has been achieved experimentally but I am not sure if anyone ever commercialized the process. After the anodic oxide film is grown, a counter-electrode may be evaporated or sputtered over the oxide surface. At the time Youngís book was published (1961), stability was a problem. While such a construction should yield a non- polarized capacitor in theory, this was not achieved in practice.

So to go back to the original question ñ- yes, electrolytic capacitors can continue to leak. Normally sealed to minimize drying of the electrolyte, once the seal is breached the normal paste electrolyte can pick up moisture from the air and continue to leak. In aluminum electrolytic capacitors, the solution is mainly boric acid. While not terribly corrosive as acids go, it can still cause considerable damage. To remove the residue, do much as Bobbi said. Organic solvents _may_ be needed but generally scrubbing with a paste of baking soda (sodium bicarbonate) will remove it as well as neutralize the acid. Use lots of water to rinse.

Tantalum electrolytics may contain sulfuric and phosphoric acid in the electrolyte. This is far more corrosive and toxic than the boric acid. Again a paste of baking soda is the preferred method to neutralize and clean up any spill. Be sure and wear safety glasses and rubber gloves when cleaning up a spill from ANY capacitor.

As Sandy pointed out, the internals of an electrolytic capacitor can develop pressure so be careful when opening one up. Related to this is the function of the little rubber plug often seen on computer grade electrolytics. This plug is there for the capacitor to vent if it ever shorts. In building high voltage power supplies for amplifiers and transmitters, it is common to use a number of these capacitors in series. Often a piece of plastic such as Lucite or Plexiglas is used to mount these screw-terminal capacitors. If you do this, PLEASE DO _NOT_ COVER the little rubber plug. Leave a hole in the plastic over the plug. If you do not do this and the capacitor ever shorts, it is likely to explode causing injury and serious damage. Even with the rubber plug uncovered, a short can cause some impressive fireworks during the venting process!

So now that I have written more than most folks wanted to know about electrolytics, allow me to ask a question. In reading my copy of Slurzberg and Osterheld recently, I came across a reference to non-polarized electrolytics. They made the comment that these capacitors were designed to operate NOT with AC but in circuits where the polarity might change OCCASIONALLY but was mainly DC. This would make sense from the electrolytic chemistry standpoint, especially if the function of the counter-electrode and the anode could be reversed. However I have usually seen non-polarized electrolytics used in AC applications like motor starting capacitors (which have an extremely low duty cycle) or in audio crossover applications. Yet I noted that in a recent Mouser catalog, the description of the non-polarized electrolytics as being for circuits which are "sometimes reversed in polarity". Can anyone provide more information on this?

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

```
From boatanchors@theporch.com  Tue Dec  3 11:16:31 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: Re: On replacing 'lytics...
Message-ID: <19961203150922.AAA10198@LOCALNAME>

At 01:24 AM 12/3/96 +0000, you wrote:
>As km1h@juno.com discourses
>>
>>    BULL simple and plain................ A disconnected Can Electrolytic
>> has about as much of  a chance  of  continued leaking  on your precious
>> radio (in your lifetime anyway) as Madonna has of becoming a nun. No
>> electroylitic action...no problem unless someone has discovered a
>> miracle.  If you are really concerned just scrape off the old leakage
>> crud as much as possible and seal the old capacitor connections with some
>> RS or WalMart  epoxy.
>>
>> ...........Carl   KM1H    ex  National Radio Service Mgr, etc
>>
>Hate to bust your bubble, but from my perspective, Madonna's been
>wearing habit a long time.
>
>Latest one was a 1942 Meissner Deluxe Signal Shifter in museum
>condition---except for where the (genuine) Mallory FP droozled its
>gloop on the side of the chassis.  Took several hours to clean up this
>mess.
>
>By the way, when Bobbi Barmore speaks, I listen.
>
>--
>===================================================================
>Hank van Cleef
>E-mail vancleef@netcom.com or vancleef@tmn.com
>===================================================================
>
>       Electrolytics can spew their corrosive juice on everything!
Sometimes the pressure will build up inside and much, much later finally
blow the vent seal and
surprise you, even if they aren't being used anymore!  I'd rather leave a
vacant hole in the chassis!  If you MUST keep it for "looks", remove it and
"gut" the case then
re-install it.  This will require breaking/cutting up the bakelite 'plug'
without damaging case lugs.  A job for a Dremel tool.  Be careful the first
hole you drill!  The goop might come out forcefully until internal presures
are relieved!
73,
E. V. Sandy Blaize, W5TVW
```

"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001
ebjr@worldnet.att.net

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: WB2ODHJIM@aol.com
Subject: Plate Transformer wanted

Wanted: Plate transformer - 110/220 volts Pri., 1500 to 1700 volts sec. @ .500 mils minimum.

Please contact Jim, WB2ODH/6
wb2odhjim@aol.com

Submissions: vhf@w6yx.stanford.edu
Subscription/removal requests: vhf-request@w6yx.stanford.edu
Human list administrator: vhf-approval@w6yx.stanford.edu

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: "Richard A. George" <wa6jox@rain.org>
Subject: Plate Transformer wanted (fwd)
Message-ID: <Pine.SUN.3.95.961202205958.25575A-100000@coyote.rain.org>

---------- Forwarded message ----------
From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: drhydro@ames.net (Paul Nelson)
Subject: RAK/RAL stuff
Message-ID: <v01540b00aeca153b529a@[1.1.1.1]>

Doggone, Bob. In your reply to km1h@juno.com about hammarlund RBG etc., you just writ one of the best darn diatribes I've yet seen on the ol' BA list.

I have fond memories of an RAK-7 on VLF that I had as a youth... just playing around with the radio range signals and the LF NSS traffic; my dad was at Bar Harbor, Maine in the late teens/early twenties, and spoke of the OUI, POZ, IDO circuits... no idea where those stations were, but I heard the LF traffic in the mid-Fifties. Later I was given an RAL receiver which I used until I went away to college.... with a BC-342 on the desk right beside it, I preferred the RAL.

and now, dadburn it, you're gonna cause me to add more weight to hold down
the basement floor! I even think I know what happened to my old RAL, and
I'm gonna inquire- I may be able to get it back, thirty-five years later!

```
Paul Nelson W5GNF               "When I go, I want to go quietly, in my
Ames, Iowa                       sleep, like my grandfather- not
                                 screaming, like his passengers."
(DrHydro@ames.net)
                                 "More hay, Trigger?"
 Cessna 140 N77149               "No thanks, Roy, I'm stuffed."
```

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: W2CRS@aol.com
Subject: Rarer than ice on the moon...
Message-ID: <961203190731_1186013470@emout11.mail.aol.com>

A manual for a Galaxy V Mark 3, natch. Three of us are still looking for a
copy of the manual or ideas of where to find one.
I also need a manuals or copy thereof, for the following-
Elmac PMR-6A
Lattine Model 242 6 and 2 transmitter
Lysco Model 600 Transmitter
I might also be interested in a PS for the Elmac PMR-6A and
coil sets for the Meisner Signal Shifter.
Thanks and 73, Doug W0AH

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: tpl.dsc@discnet.com
Subject: Re.: 4PR1000
Message-ID: <9612031305.AA100269@sfm.discnet.com>

Let me know what you find out. I have an Eimac 4-1000A that might be used
for an amplifier or a lamp.

Thanks,   Tom L.

===

Does anyone have any experience with a 4-PR1000 tube in continuous duty
amplifier sevice? If so, please email me direct at wb4iuy@ipass.net.

This tube was designed to do 25KW in pulse service at 4% duty cycle. I want
to build an amateur amplifier with it, and wonder how it would operate at
say 1KW continuous duty.

Thanks,
wb4iuy@ipass.net

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: pmills@A.crl.com (Phil Mills)
Subject: RF plate choke resonance??
Message-ID: <199612032249.AA04812@A.crl.com>

In the continuing saga of the KWS-1, I followed someone's suggestion
to remove my (recently rewound) plate choke and test it for resonance
by shorting across it and finding resonance with a grid dip meter.
I've done this and, verifying the gdo frequency with my trusty R-388,
discovered that the resonance point is 25.5 Mc. Now the question is,
is this far enough away from 21 and 28 Mc to not cause problems
with the PA on 15 or 10 meters? Opinions please!

thanks for the help,
Phil
.
Phil Mills, AB5TH   ****   *****
pmills@a.crl.com
281-992-5762 DAYS
Friendswood, TX   (south of Houston)

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: Chris Demeroukas <radios@accessusa.com>
Subject: Right-Angle Twinax
Message-ID: <3264215A.6558@accessusa.com>

Hello BAers:

I found the elusive right-angle "C" connector for the R390A, now, does
anyone know who may have a right-angle twinax for the same animal?
Thanks.

Chris

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: Bob Marsh <bmarsh@hicom.net>
Subject: Stuff for Sale
Message-ID: <32A471BB.6574@hicom.net>

Hi Everyone,

I have the following equipment for sale/trade:

Heathkit HW-16: I replaced several caps and the rectifier diodes in the power supply, but still have the originals caps. There appears to be some older work done on it as well. The rig transmits & receives OK, but has a chirp. (I understand that's pretty common with these rigs) Cosmetically clean except for paint nicks on edges. Has copy of the manual and new tubes (from AES) in the TX. $90.00 OBO

Heathkit HG-10 VFO: Set up for use with the HW-16. I reversed a mod that placed the matching resistors outside the case in the back. As a result, there are some extra holes in the back. Can't say what other mods may have been done, but it does work with the HW-16 OK. Looks cosmetically good. (better than the HW-16) Comes with manual copy. $85.00 OBO

Heathkit SB-610 Station Monitor: It appears to be in good condition. I had it working (on TX) with my Kenwood TS-850. It showed the CW waveform OK. No mods & VG to excellent cosmetically. Has original manual. I'm not sure I want to sell this, since I may hook it up to my SB-301/401. If it's worth it to me, though, I'll let it go. Make me an offer.

Johnson Challenger (80 - 2 meter CW/AM TX): This rig is complete with original knobs, etc. The case is scratched and may need refinishing, and the rubber feet along with several mounting screws are missing. I replaced the power cord with another 2 conductor job and originally brought it back up with a variac. It loaded up OK on 40m (the only crystal I have in the amateur band) and I worked a few stations with it a while ago. Signal reports were OK, but I think this guy has a chirp too. It has a copy of the operators manual. $75.00 OBO

Hallicrafters S-118 Receiver: This appears to work OK, but has a broken IF Xformer slug. (I admit it - I broke it trying to do an alignment). cosmetically it could use some work, but the front panel looks pretty good. It has a copy of the manual with it. $15.00

Globe HG-303 Transmitter: 80 - 10 meter CW This guy looks like it fell off a truck (literally). The meter is broken, it's missing the final (a 6146), the chassis is bent and is generally in pretty bad shape. Too bad, cuz it's a nice little rig (tiny, too). I'm offering this as a parts rig unless you have more patience than me. No documentation. $10.00

I'm looking to get a fair price for this stuff, so I'll consider any

reasonable offer. If you think they're too high, make an offer and let
me know why. Prices DO NOT include shipping. I'm looking for:

Ten-Tec equipment (Tube or SS)
QRP Kits/Equipment/Rigs
2m HT modifiable for MARS Freqs
Whatever I haven't thought of yet

Thanks for the bandwidth.

73 de Bob/KB2SGM

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: "Allan Fritsche" <fritsche@msn.com>
Subject: SX-101 MKIII lives.
Message-ID: <UPMAIL03.199612030405540684@msn.com>

Hi gang, between putting up a Christmas tree and whatever, I was able to get
the freshly painted Bezel on this rig... Panel was touched up and all
lettering was touched up a little, didn't need much. Panel was waxed and
then the assembly began. All knobs had been previously cleaned and put in a
bag called (SX-101) clever, right? All tube sockets were di-oxid, BTW,
for the Houston crowd, their selling at 2.50 a can at Electrotex on
Richmond Ave. Think I should align before taking on the HT-32 but I don't
think it's required ... Signals comming in from all over the world, etc.
This guy is so clean and shinny inside I convinced my wife to heat up
the beany-wennies over the 6K6 output tube. She in turn told me where
to stick the 6K6, But you know how the girls are?
Now again for the begging and pleading portion of this message.
This guy would look good in Dachis book if not better. Only problem is the
little BFO knob is not original. I will give some fortunate soul 25 dollars
for
said knob. If thats not enought, take my wife, two Dacshunds, my Explorer,
and my new roof.

Your Friend Al
fritsche@msn.com

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: azkb7ryu@aztec.asu.edu (JOEL N. STEENIS)
Subject: T-4XC Gain Setting
Message-ID: <9612032210.AA11202@aztec.asu.edu>

Hi Gang,

I recently purchased the Drake C line twins and am having a difficult time understanging how to set the gain. In the manual it states that on CW you should set the gain at 12 o'clock but at this setting I am only getting a few watts out on 20 meters. Advancing the gain to the 3 o'clock position yeilds 100 watts out. Is this OK?
I would appreciate hearing from anyone as to what level theirs is set.
Thanks.

73, Joel KB7RYU

--

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: "Edward J. Zeranski" <ejz@nosc.mil>
Subject: Re: Tube suffixes
Message-ID: <2.2.32.19961203152322.01428da4@marlin.nosc.mil>

At 21:13 12/2/96 -0600, you wrote:

>Scott Robinson wrote:
>
>Hi BAfolks...
>
>> In response to Ray Cote's question, yes, I believe that the -W suffix meant military version, usually mechanically toughened. The -A, -B, -C, and so forth are rveisions or improvements to the basic tube.
>

5000 and 6000 series numbers for civvie tubes, 5718 for 6C4, also indicate a rugedized tube. Most are exact replacement while there some with fil current, pwr, or minor base size differences. The 5881 has 20% greater screen and plate dissapation than the 6L6 for example, 5751/12AX7 has 175 mil fil current or the 5933WA has a .30" larger base than the 807. Reference is from me olde Philco Field Service/Tech Rep Handbook.

>
>

Ed Zeranski   ejz@marlin.nosc.mil, work
ezeran@cris.com   home

```
 Wooden Boats, Tube Receivers, Rusty Old Trucks, The Good Stuff!

 This is a private opinion or statement and is nobody's fault but  mine. No
person,employer,or govt.should try to take credit for  it!




From boatanchors@theporch.com  Tue Dec  3 11:16:31 1996
From: "Edward J. Zeranski" <ejz@nosc.mil>
Subject: UMQ-7 tape recorder
Message-ID: <2.2.32.19961203164750.006fcd4c@marlin.nosc.mil>

        A BA friend needs a copy of the pub for this BA mil tape recorder.
They were used in the Navy to record sonar and radio intercept audio. I once
had a manual but it has gone astray. We (Nam time Navy) had one coupled to a
WLR-1 receiver and another that could be patched to an R390A. Thanks for the
help, will cover copy/post fees.

 Ed Zeranski   ejz@marlin.nosc.mil, work
               ezeran@cris.com      home
 Wooden Boats, Tube Receivers, Rusty Old Trucks, The Good Stuff!

 This is a private opinion or statement and is nobody's fault but  mine. No
person,employer,or govt.should try to take credit for  it!




From boatanchors@theporch.com  Tue Dec  3 19:53:31 1996
From: Robert Fowle <hammarlund@jacksonmi.com>
Subject: Want to Trade
Message-ID: <32A4C903.2B19@jacksonmi.com>

this isn't BA, but it sure is handy for working on them.

Foredom bench model variable speed.
have 2 handpieces with geared chuck.
(1 NIB) & some misc bits & stuff
Industrial quality equipment...
will trade for 2 -  32mb strips of 72 pin simms
60ns or 70ns (as long as both the same)
Great item for those BA projects...
just don't have the need for it anymore...

reply via email if interesed in a trade.
thanks
--
**** Please, Visit my Web Page.....****
=================================================]-[->
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Robert Fowle   KC8DBC
1215 Winifred
Jackson, Mich. 49202-1946
Ph. 517-789-6721
E-mail: hammarlund@jacksonmi.com
Web Page: http://www.jacksonmi.com/hammarlund

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: djw@unlinfo.unl.edu (Daniel Wright)
Subject: Waxing Panels
Message-ID: <9612031526.AA10448@unlinfo2.unl.edu>

Greetings!

I have noticed several posts to the list that mentioned
"waxing" a front panel or cabinet. What's up with this??
Is there a "BA-preferred" brand of wax? Car wax?
Johnson's Glo-Coat?? I would appreciate hearing the wisdom
of this practice....(;->!

Thanks es

73 de Dan -- WA0JRD ..
djw@unlinfo.unl.edu

From boatanchors@theporch.com Tue Dec 3 19:53:31 1996
From: k7yha@juno.com (Richard H. Arland)
Subject: Re: Waxing Panels
Message-ID: <19961203.220503.4415.2.k7yha@juno.com>

On Tue, 3 Dec 1996 09:29:29 -0600 (CST) djw@unlinfo.unl.edu (Daniel
Wright) writes:
>Greetings!
>
>I have noticed several posts to the list that mentioned
>"waxing" a front panel or cabinet. What's up with this??
>Is there a "BA-preferred" brand of wax? Car wax?
>Johnson's Glo-Coat?? I would appreciate hearing the wisdom
>of this practice....(;->!
>

Dan *& Gang:

I have used Finish 2000 which is a car wax for acrylic paint. I have
obtained excellent results with two to three applications on front

panels and cabinets. I really makes the panels look new. I have used it on bakelite and plastic knobs, also, but I get better results with brass polish (believe it or not) on the knobs. Brings back the luster.

I think Simonize, any of the Turtle Wax products, etc will work. Finish 2000 was what I had on hand and it has proved very effective.

73 rich K7SZ

From boatanchors@theporch.com Tue Dec 3 11:16:31 1996
From: k7yha@juno.com (Richard H. Arland)
Subject: WTB Science Probe Magazines
Message-ID: <19961203.011955.4399.3.k7yha@juno.com>

Gang:

Not sure whether or not to post this here, but I could not think of another place to try....since many on this list are also amateur scientists. So go ahead and flame away.....sorry if I've made an "Internet Social Blunder" (hereafter called an ISB...not to be confused with Independeng Side Band!)

Need some fills on my back issues of Science Probe magazine:

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     Vol 1  Number 1 (Jan 1991)
     Vol 2 Number 2  (Apr 1992)
     Vol 2 Number 4  (Oct 1992)
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and anything after Vol 2 #4 (although I don't think SP was published in 1993...)

There are some terrific articles in these magazines. Too bad it's out of print.

From boatanchors@theporch.com Tue Dec 3 16:20:38 1996
From: mknudsen@lucent.com
Subject: WTB: Viking II Mod Transformer
Message-ID: <9612031959.AA00431@bock.ih.lucent.com>

Subject line sez it all.

I'm trying to open up my bad unit (one primary plate lead is open)
to check for a bad lead and easy fix, but the thing is full
of wax, which is probably just tearing more wires loose. Looks

like the easy-melting kind, so maybe I'll find a way to melt it out in the oven. Unforch, the XYL plans no overnite biz trips in the near future, so if anyone has one they'd be willing to strip off a carcass and sell me, I'll bite. Tnx es 73, mike k aa9rg